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# **REPORT ON CABLE TELEVISION-RELATED NEEDS AND INTERESTS WITHIN THE LOUISVILLE METRO FRANCHISE AREA**

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1. Community Organization/Government Agencies Cable Television Online Assessment Survey Mark-up

### **Section C**

1. Public Access Program Providers/Producers/Users Online Assessment Survey Mark-up
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1. Louisville Metro Institutional Network Expansion Projections

## EXECUTIVE SUMMARY

CBG Communications, Inc. (CBG), in conjunction with its Team Partners, Dr. Constance Book, Ph.D. and President of Telecommunications Research Corporation, Carson Hamlin, Video Engineer/Media Integrations Specialist, and telephone survey firm RDD Field Services, has conducted a comprehensive cable-related Needs and Interests Ascertainment of the Communities of Interest (Communities) within the Louisville Metro (Metro) Franchise Area. These Communities represent the diversity of the population within the Louisville Metro Franchise Area, including residential cable subscribers and non-subscribers, program producers and providers for local Public, Educational and Governmental (PEG) Access television, internal and external organizational stakeholders, Institutional Network (I-Net)<sup>1</sup> users and others as further described below. This Ascertainment has been conducted as part of cable franchise renewal proceedings with a local cable television provider, Insight/Time Warner.<sup>2</sup>

CBG and its Team Partners have decades of experience in working with local governments on cable television, needs assessment, PEG Access, technology, broadband, telecommunications, and other matters. In this regard, we have performed numerous community, PEG and I-Net Needs Ascertainments, as well as PEG Access, Technical and I-Net reviews and audits in preparation for franchise renewals. This includes a wealth of experience and expertise performing activities related to cable communications needs and interests ascertainments, subscriber/non-subscriber attitudes, interests, needs and opinion research, evaluating existing and projecting new PEG Access facilities and I-Net facilities for proper functionality, capacity and reliability, designing I-Nets and performing technical audits and system review. CBG and its Team Partners brought all of this experience and expertise to bear on the Louisville Metro Needs Ascertainment Project.

The full results of the Needs and Interests Ascertainment are presented in a Comprehensive Report that provides a wealth of information for Metro regarding issues of significance to the citizens and organizations in the Metro franchise area, related to cable communications, and correspondingly, the ability of the cable system and Insight/Time Warner to meet demonstrated needs and interests. The key findings, recommendations and observations discussed in this summary and in the

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<sup>1</sup> The Institutional Network or “I-Net” is provided to Louisville Metro under Section 47 of Ordinance #76, Series 1998 (as amended) (“ ‘98 Ordinance”). It is explained in more detail later in the Executive Summary.

<sup>2</sup> The local cable operator’s corporate name is Insight Kentucky Partners II, L.P. but it is now a wholly owned subsidiary of Time Warner Cable, Inc. since a merger was consummated in 2012. Accordingly, this document will refer to the cable operator as “Insight/Time Warner”.

Comprehensive Report are based on an extensive data collection including, but not limited to, the following:

- A telephone-based Residential Community survey on cable-related needs and interests, randomly administered to 442 cable subscribers and 358 non-subscribers in the Louisville Metro Franchise Area, conducted with respondents over both landline telephone connections and cell phone connections. The information obtained provides a wealth of statistically valid data on citizen needs, interests, attitudes and opinions related to cable television.
- Four (4) Town Hall meetings held around the Louisville Metro Franchise Area in late November, 2012, designed to give the public at large an opportunity to comment on similar subject areas to those covered in the telephone-based survey.
- An on-line internal and external stakeholder's survey which resulted in a wide variety of community organizations, non-profits, educational entities, businesses and government agencies being represented in the cable-related Needs Assessment. Results were obtained from a diverse group of 102 organization and government agency representatives.
- Internal and external stakeholders focused discussions that again included a variety of representatives from different community organizations, government agencies and businesses.
- Interviews with educational organizations, including representatives from a parochial school, Jefferson County Public Schools (JCPS) and the University of Louisville.
- Interviews with staff and on-site visits to current PEG Access programming production and origination locations, including MetroTV facilities, Council Chamber production areas, and Public Access Channel 98's production facility.
- A focused discussion with Public Access Channel 98 program producers and providers, as well as an on-line survey distributed to all those who produce and provide programs at Public Access Channel 98.
- An on-line survey of MetroTV staff and user agencies concerning their experiences with a variety of MetroTV characteristics and delineation of both their current and future needs.
- A broad-based workgroup meeting and follow-up discussions with Institutional Network users and potential users.
- A review of a variety of existing and historical data related to Public Access Channel 98, MetroTV and I-Net use, as well as Public Access Channel 98 operational information and a written survey response from Insight/Time Warner.

The analysis of this data enabled CBG and its Team Partners to focus on many elements related to a renewed cable franchise. First, CBG and its Team Partners were able to comprehensively assess the needs of the Residential Community. Specifically, we were able to review:

- The general level of satisfaction with Insight/Time Warner.
- Suggestions from subscribers and non-subscribers on how to improve the services provided by Insight/Time Warner.
- The quality of specific cable service features and characteristics.
- Ratings of communication experiences with Insight/Time Warner.
- Technical issues, including subscriber experiences with outages, picture and sound quality and restoration of services.
- The types of local programming and services of interest to Louisville Metro franchise area subscribers.
- Viewership and ratings of Public and Governmental Access programming, as well as the need for additional Educational Access programming in the future.

Regarding the needs of internal and external stakeholders, the research methodologies utilized enabled CBG to review:

- The use and importance of cable television services to internal and external stakeholder organizations.
- Overall experience with PEG Access programming.
- The value of PEG Access programming to internal and external stakeholders.
- The use and value of MetroTV's and Public Access Channel 98's facilities, equipment, staff and other resources to develop programming.
- Experience with and ratings of internet and data communications services.
- Use and importance of the fiber-based Institutional Network.

Regarding PEG Access, the research methodologies utilized enabled CBG to review:

- The amount and type of PEG programming currently provided.
- The need for expansions in channel capacity and capabilities.
- The need for implementation of new PEG services such as cable-based Video on Demand.
- The need for new, upgraded and replacement equipment, including continued migration from analog and standard definition (SD) to high definition (HD) and other advanced platforms.



- The need for PEG Access facility enhancements.
- The need for enhancements in PEG Access operations and personnel support.

Concerning the I-Net, the data gathered enabled CBG to look at the current and future needs and interests of I-Net users and other stakeholders, including:

- Additional facilities.
- Network redundancy.
- Network standards.
- Network testing and evaluation.
- Disaster Recovery Plan (DRP).

Detailed findings, along with conclusions and recommendations, are incorporated in the Comprehensive Report. The key findings, conclusions and recommendations for consideration by Louisville Metro are the following:

#### Residential Community Needs Assessment

- Regarding compliance with customer service standards, 10% of telephone survey subscriber respondents indicated that they had received a busy signal when calling the company. This is greater than the 3% allowed by the requirements of the cable franchise (Ordinance 76, series 1998 [as amended]-“’98 Ordinance”, Section 17(2)(c)). Additionally, 41% of subscribers indicated that their call had not been answered within 30 seconds, including time left on hold (10% is allowed under the ‘98 Ordinance, Section 17(2)(b)). Both of these indicate a need to improve Insight/Time Warner’s telephone response.
- Over 1 in 3 of telephone survey subscriber respondents indicated dissatisfaction with Insight/Time Warner’s communications related to rate and programming changes, indicating a need to modify and potentially expand both the means and the message related to changes in rates and programming.
- Regarding technical issues, 34% of telephone survey subscriber respondents indicated that they had experienced a signal outage, picture clarity or reception problem. Of these, 27% indicated that they were dissatisfied with the length of time it took Insight/Time Warner to restore service. These issues were also the most common reasons for calling

Insight/Time Warner. Accordingly, it will be important to address how Insight/Time Warner staffs its technical operations in both quality and number. Improvements in both picture quality and signal continuity will also reduce call volume and ease the 41% of cable customers who had excessive call connection times. These technical issues, and others, were also echoed by participants in the various Town Hall meetings.

- Regarding PEG Access channels, awareness of PEG Access channels was high with 67% of subscribers and 51% of non-subscribers indicating that they were aware of the local PEG channels that appear on the system.
- For subscribers, viewership of MetroTV was significant at 19% weekly viewing (5% watching for more than five hours per week). Public Access Channel 98 experienced a 15% weekly viewing rate.

Concerning the viewing of multichannel video services, these numbers indicate significant viewership. As an example, one of the top overall cable networks, ESPN, typically has a weekly audience of 35% of all multichannel video subscription households. In fact only the top networks have more than a 20% weekly viewing audience. While not a direct comparison because of the differing measurement basis (all multichannel video subscription [cable, satellite, etc.] households nationally versus cable television subscription households locally), both represent cumulative weekly audience measurements which show that even the most popular channels will not garner a majority of viewing households in a large multichannel environment. Considering this, MetroTV and Public Access Channel 98 are attracting a healthy number of viewers versus other choices on the cable system.

- Eighty-nine percent (89%) of subscribers expressed the importance of having the local Access channels available on the Insight/Time Warner system (64% “very important” or “important”); regardless of how often they themselves watch.
- Seventy-four percent (74%) of subscribers who regularly view local access programming expressed the value of having the programming available on-demand on the cable system (48% “very valuable” or “valuable”).

- Seventy-three percent (73%) of subscribers expressed the importance of funding being available to specifically support local community programming (46% “very important” or “important”).
- Fifty-four percent (54%) of subscribers have a level of service that includes HD channels and over 1/3 of those mostly watch the HD channels, meaning that PEG Access channels will need to also be on the HD tier to continue to be viable with this portion of the subscribership.

### Internal/External Stakeholder Assessment

- Internal Stakeholders place a high value on the use of MetroTV’s facilities, equipment, staff, channel playback or other resources. Of those respondents to the survey who utilized MetroTV’s resources, 82% indicated that it was very important or important to the fulfillment of their organizations’ missions or goals. This was echoed in the internal stakeholder focused discussion as well.
- Many important uses of MetroTV were listed by such stakeholders, including:
  - Promoting public awareness.
  - Communicating information to constituents.
  - Connecting the citizens of Louisville Metro to critical services.
  - Providing information so that people can learn their rights.
  - Providing citizen awareness of real/perceived emergencies and response services.
  - Coverage of public meetings and special events.
  - Programs about agencies and their mission.
  - Many others.
- MetroTV will need to continue to enhance and advance its facilities, equipment, staff, channel playback and other resources in order to meet the needs assessed. Survey respondents and focused discussion participants, especially internal stakeholders, indicated that there were several critical capabilities that need to be expanded, enhanced or added to MetroTV including:
  - High Definition program production and distribution capabilities.
  - Bigger studio facilities.
  - More live, remote origination capabilities.

- Not as many internal/external survey respondents or focused discussion participants were aware of Public Access Channel 98's facilities, equipment, staff, channel playback or other resources. However, 22% of those who did not currently use such resources indicated that they would like to in the future. Reasons for using the channel included: developing PSAs and other public information and educational opportunities.
- Local educational programming is a valuable part of cable service. Representatives from educational interests talked about the importance of having an outlet for local educational programming. Down the road, this means that a separate educational channel may be required in order to fulfill the needs at that time.
- PEG Access programming should be provided with advanced features. Many internal and external survey respondents, as well as focused discussion participants, indicated that it is important to have access programming available on-demand as well as have detailed descriptions of such programming on the interactive menu.
- Survey respondents and focused discussion participants who either utilize the I-Net now or need to use it in the future (provided pursuant to '98 Ordinance, Section 47) indicated a variety of current and potential uses of the I-Net including:
  - Data and voice communications
  - Training and education
  - Provision of internet access
  - Providing a tremendous public service in a time of crisis
  - Enabling faster, bigger, cheaper connections with better service and scalability
  - Providing excellent opportunities for communicating and collaborating
- Regarding importance of cable television service to the organization's mission and goals, 60% of survey respondents, as well as the majority of focused discussion participants, indicated that cable television service was very important or important to their organizational goals and mission. For those that are provided the service as part of franchise obligations, this means that it will be important to continue this provision of service, including the provision to additional facilities, such as facilities currently not served by cable service.<sup>3</sup>

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<sup>3</sup> Section 43(2) of the '98 Ordinance, states that upon request of the City (now always referred to as Louisville Metro), the Franchisee shall "provide basic cable service (not including premium and pay-per-view services) free of

- A very high priority of broadcasters and emergency managers is to ensure that up to-date, time sensitive emergency information is not overridden by outdated information provided by Insight/Time Warner's Emergency Alert System. This sentiment was also echoed in comments provided during the Town Hall meetings, as well as by subscribers in the residential telephone survey.

### PEG Access Needs Assessment

- The current provision of PEG Access channels is valuable to program producers and providers, internal and external stakeholders and organizations and residential viewers and needs to be maintained. The current provision is stipulated in Section 46 of the '98 Ordinance, which provides that:
  1. Operator will provide 3 PEG channels, unless the City & the Operator otherwise agree. Operator will provide the following if requested by the City:
    - a. live coverage of Board of Alderman meetings (now Metro Council);
    - b. live coverage of all JCPS Board meetings; and
    - c. other governmental programming.
  2. Operator will maintain at least 1 centrally located public access studio, and will provide modern and up-to-date equipment as appropriate for public access productions according to generally accepted industry standards. Operator shall continue to provide technical training for persons interested in learning how to produce and edit access programs, at least to the level currently provided.

Only 2 of the 3 channels are active at this time.

- Some educational programming is provided by Insight/Time Warner on Public Access Channel 98, but the level of programming is forecast to grow in the future, meaning that the current reserved third PEG channel should be maintained to provide an outlet for a specific educational channel in the future.

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charge to each public, private, parochial and post-secondary school, including school administration building, each City office and agency, and each City-owned and City-leased facility within the City as shall be designated by the City from time to time, provided the school or facility is within one hundred twenty-five (125) feet of cable system.”

- Further, there is a need to provide capability for an expansion of another channel for government access programming in the future. Louisville Metro and Insight/Time Warner have had extensive discussions to this point on the need to have two government channels and this requirement is reinforced by the findings of the Needs Assessment.
- Accordingly, all the above demonstrates the need for four real-time, full-time, PEG Access channels in any renewed franchise.
- There is a significant need to provide PEG Access programming in forms and formats beyond the current real-time, standard definition provision of the channels, including:
  - High Definition (HD).
  - Cable-based on-demand.
  - Interactive television (iTV).
- New, upgraded and replacement equipment for MetroTV and Public Access Channel 98 needs to be provided consistent with the needs demonstrated and the associated projections made, including:
  - For MetroTV – new, upgraded and replacement equipment equaling approximately \$2,369,632 is needed over the next ten years in order to support the programmatic initiatives indicated in our assessment findings.
  - For Public Access Channel 98 – new, upgraded and replacement equipment equaling approximately \$927,648 is needed over the next ten years to support the initiatives indicated in our assessment.
  - Facility enhancements are also needed for both MetroTV and Public Access Channel 98, including:
    - *MetroTV* - 1,421 additional square feet for MetroTV at a facility construction/renovation cost of approximately \$200 per square foot, equaling a capital facility funding requirement of \$284,200.
    - *Public Access Channel 98* - 705 square feet of space is needed for Public Access Channel 98 at a facility construction/renovation cost of approximately \$200 per square foot, equaling \$141,000 needed in capital facility funding.

In summary, regarding capital funding, the total dollar figure needed over a ten-year period is approximately \$3,722,480. Note that the amounts needed vary significantly over each of the ten years, meaning that more funding is needed upfront because of the significant current and near future needs noted. This for example could equate to approximately \$543,950 in capital equipment funding needed in Year 1 of any renewed franchise for equipment, plus \$425,200 for facility expansion potentially as early as Year 1.

- Additional personnel and operational support is also needed. Specifically, this would include the addition of an Executive Producer, Video Engineer, Field/Studio Producer and Post-Production/Editor for MetroTV, and an Assistant Public Access Director for Public Access Channel 98.

#### I-Net Needs Assessment

- The fiber-based Institutional Network is well valued and well utilized and should be maintained. Section 47 of the '98 Ordinance details the Institutional Network & provides:
  1. Network. Franchisee shall construct, install & maintain an I-Net as part of the cable system to the locations indicated in Exhibit "A" of the ordinance. The I-Net shall provide 2 fibers to each site. The City shall only use the I-Net for governmental purposes & shall be solely responsible for purchasing all necessary equipment for data transmission and other applications & all facilities located beyond the "demarcation point" as defined herein. The City shall not resell or lease any unused capacity on the I-Net to third parties. The City & the Franchisee shall agree on the location in the buildings at or near the telephone junction box, which buildings are located on the sites indicated in Exhibit "A", for terminating the fiber optics. Such termination points shall be herein defined as demarcation points.
  2. This section states that the Franchisee shall own & maintain the I-Net & that the Franchisee hereby leases the I-Net to the City, with such lease running concurrent with the term of the Franchise. There is no additional cost to the City for the I-Net.

- There are a number of needs demonstrated through the internal stakeholders survey and focused discussions as well as the I-Net workgroup meeting, follow-up discussions, network review and other related activities. These include, but are not limited to :
  - Additional Facilities – The Assessment has identified 81 facilities not currently on the I-Net where expanding the I-Net to them would enhance capabilities, reliability and reduce networking costs to the users.
  - Regular Meetings and Correspondence with Time Warner – Although a good relationship has existed between Louisville Metro and Insight/Time Warner staff concerning the I-Net, requirements need to be included in a renewed franchise that cover:
    - Access to hubs.
    - Response times when problems occur.
    - Accommodations at the hubs.
    - Requirements for adding new or relocating existing locations.

Additionally, it will be important for Time Warner and Metro staff to meet regularly concerning events that may impact each other.

- Network Standards – Additional standards need to be in place concerning the I-Net related to fiber optic specifications and reliability requirements.
- Network Testing and Evaluation – Similarly, all new locations need to have basic certification testing that is placed into the record as baseline, and then compared against tests that need to be run when users experience problems.
- Disaster Recovery Plan - A Disaster Recovery Plan (DRP) needs to be created designed by users of the network and Insight/Time Warner to ensure that all catastrophic failures of the network can be overcome in the least amount of time while prioritizing the recovery tasks.

The findings, conclusions and recommendations summarized above and fully detailed in the Comprehensive Report, provide a strong and sound basis for Louisville Metro to go forward in franchise renewal proceedings and ensure that the diverse Communities of Interest's needs and interests are met in any renewed franchise developed with Insight/Time Warner.



**SECTION A**  
**REVIEW OF CABLE-RELATED RESIDENTIAL**  
**COMMUNITY NEEDS AND INTERESTS**  
**IN THE LOUISVILLE METRO FRANCHISE AREA**

## RESIDENTIAL COMMUNITY NEEDS ASSESSMENT

### **Introduction**<sup>4</sup>

As part of cable television franchise renewal proceedings for the Louisville Metro franchise area, a survey of Louisville Metro franchise area residents, including the former City of Louisville and Unincorporated Jefferson County, was conducted among Insight/Time Warner<sup>5</sup> cable television subscribers<sup>6</sup> and non-subscribers to document needs and interests related to cable television service. The following narrative summary reports on the findings and conclusions of that field research.

The first set of findings are based on telephone interviews conducted with a random sampling of 800<sup>7</sup> franchise area residents during December 2012 and January 2013. Of those interviewed, 442 were cable subscribers and 358 were not. Statisticians have created a confidence rating in field survey research based on sample size. A sample size of 800 residents provides for a margin of error of  $\pm 3$  percent. In other words, if this study were to be replicated among another random sample of franchise area residents, one can feel confident that these same findings would be repeated within  $\pm 3$  percent of the scores reported in this study. Additionally, of the 800 interviews conducted, 214 (27%) of those were residents that used their cell phone only. By including cell phone only residents into the telephone survey study, we ensure that all residents of the Louisville Metro franchise area are represented since national surveys projected that 34% of the population in Kentucky were cell phone only households in 2010.<sup>8</sup>

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<sup>4</sup> Percentages have been rounded off to the nearest whole number; therefore totals will fall between 99-101%.

<sup>5</sup> The local cable operator's corporate name is Insight Kentucky Partners II, L.P. but it is now a wholly owned subsidiary of Time Warner Cable, Inc. since a merger was consummated in 2012. Accordingly, this document will refer to the cable operator as "Insight/Time Warner".

<sup>6</sup> All references to "cable television subscribers", "cable subscribers" or "subscribers" throughout this Report are those that subscribe to services from Insight/Time Warner. "Non-subscribers" refers to those that do not subscribe to Insight/Time Warner cable television services, including those that subscribe to another cable television service (such as AT&T's U-verse Service).

<sup>7</sup> A symbol of N will be used periodically throughout this report to denote total responses.

<sup>8</sup> National Health Statistics Report in October 2010 estimated Kentucky's cell phone only penetration to be at 34%. [http://www.cdc.gov/nchs/pressroom/states/WIRELESS\\_STATE\\_2011.pdf](http://www.cdc.gov/nchs/pressroom/states/WIRELESS_STATE_2011.pdf)

Also important to note during the reading of this narrative is that numbers were rounded off to the nearest whole number at the 0.5 level. As a result, when considering the total percentages related to any given response the numbers reported will fall between 99-101%.

Interviews with cable subscribers lasted, on average, twelve minutes. The instruments used during field research were specifically designed to examine several areas of cable television service. These included, but are not limited to:

- Respondents' familiarity and experiences with Insight/Time Warner.
- Reasons non-subscribers do not subscribe to cable service or no longer subscribe to Insight/Time Warner Cable service.
- Amount of the average monthly cable bill.
- Type of cable package subscribed to by respondents.
- General level of satisfaction with Insight/Time Warner.
- Suggestions on how to improve the services provided by Insight/Time Warner.
- Quality of specific service features provided by Insight/Time Warner.
- Evaluation of customer service standards
- The importance of a local Insight/Time Warner office.
- The number of cable outages and subscriber experiences with restoration of services.
- List of specific channels with poor picture quality or poor audio quality.
- User of the interactive program guide
- Television sources for emergency information
- Citizen opinions of government and community access programming currently offered and future interest in programming, including local educational programming
- Quality of the picture and sound of access programming and evaluation of the programming's educational, informational and entertainment value
- Support for local access programming

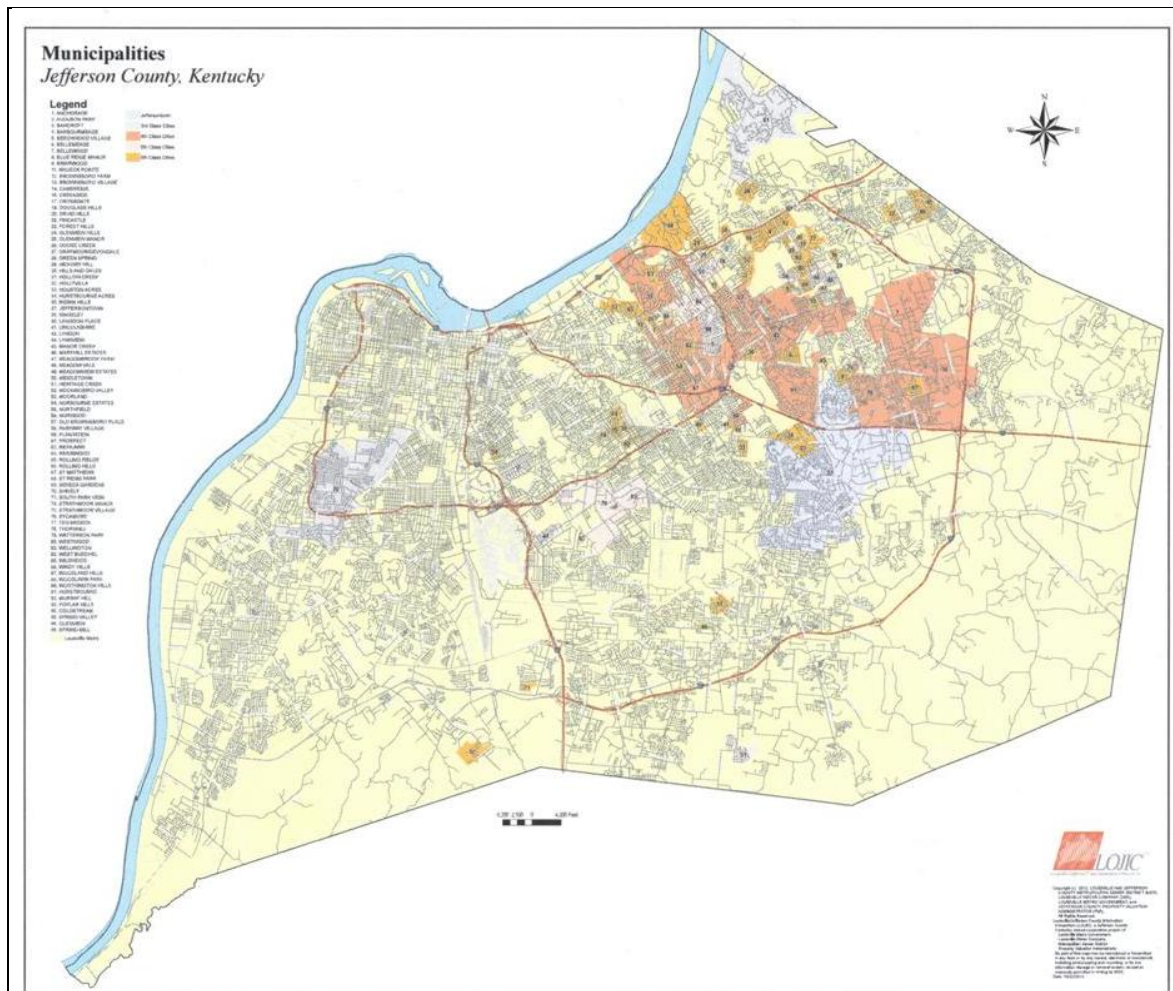
In addition, four Town Hall meetings were held around the Louisville Metro area in late November 2012, designed to give the public at large an opportunity to comment on similar

subject areas to those covered in the survey. The findings from these Town Halls are provided later in this Report section.

## **Survey Research Methodology**

To ensure a statistically reliable and valid data collection, the sample for the Louisville Metro franchise area was drawn using a multiple frame. The franchise area is complex in that households are in close proximity to municipalities covered under other franchise agreements and frequently fall within the same zip code.

Figure 1: Map of the Louisville Metro franchise area (light yellow)



The most important characteristic of the randomly sampled household in this study was that it resided in the franchise area. To ensure this, the sample utilized three frames: random digit

dialing (RDD), listed household sample based on census block (LHH) and voter registration (only used with the cell phone sample).<sup>9</sup>

Multiple frame sampling is preferred when a high degree of precision is needed to ensure a qualified sample. The sample was further verified by the telephone interviewer who confirmed with the respondent that they lived within the franchise area. Additionally, statisticians agree that when analyzing data from multiple frame sampling, that it should be treated as a one sample frame when a high degree of confidence exists that the each household in the frame meets the primary qualification for inclusion in the study (lives within the designated franchise area.)<sup>10</sup> Cell phone numbers accounted for 38% of all respondents who completed the survey. During this complex period of cell phone and landline phones in use by our communities, this sampling process ensured Louisville Metro Government that all types of telephone environments were appropriately represented in the study.<sup>11</sup>

A contracted telephone research firm, RDD Field Services (“RDD”) conducted the telephone polling on the project. Established in 1994, the firm has more than 18 years of experience surveying residents throughout the United States.

Calls were placed during a variety of times of day, during weekdays and weekends to ensure that all sets of lifestyles were represented in the data collected. RDD utilized trained interviewers and a call back procedure to protect the reliability and validity of the data collected.

The survey instrument was designed by CBG Communications and Dr. Book with consultation, assistance and approval of representatives from the Louisville Metro Government.

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<sup>9</sup> Lohr, S., & Rao, J. N. K. (2006). Estimation in multiple-frame surveys. *Journal of the American Statistical Association*, 101, 1019–1030. Also in, H.O. Hartley (1974), “Multiple Frame Methodology and Selected Applications”, in *Sankhya*, the Indian Journal of Statistics, Series C, 36, 99-118.

<sup>10</sup> Carfagna, E. (2001a). Multiple frame surveys: advantages, disadvantages, and requirements. In *International Statistic Institute, proceedings, invited presentation, International Association of Survey Statisticians (IASS)*. Seoul, Korea, August 22-29, 2001, pages 253-270.

<sup>11</sup> The American Association of Public Opinion Research (AAPOR) is the leading voice on sampling. The organization has acknowledged the complexity of telephone sampling at this time in the United States, but has not issued a set of best practices. Instead, they encourage researchers to include cell phones in their samples through the best means available. [http://www.aapor.org/uploads/Final\\_AAPOR\\_Cell\\_Phone\\_TF\\_report\\_041208.pdf](http://www.aapor.org/uploads/Final_AAPOR_Cell_Phone_TF_report_041208.pdf).

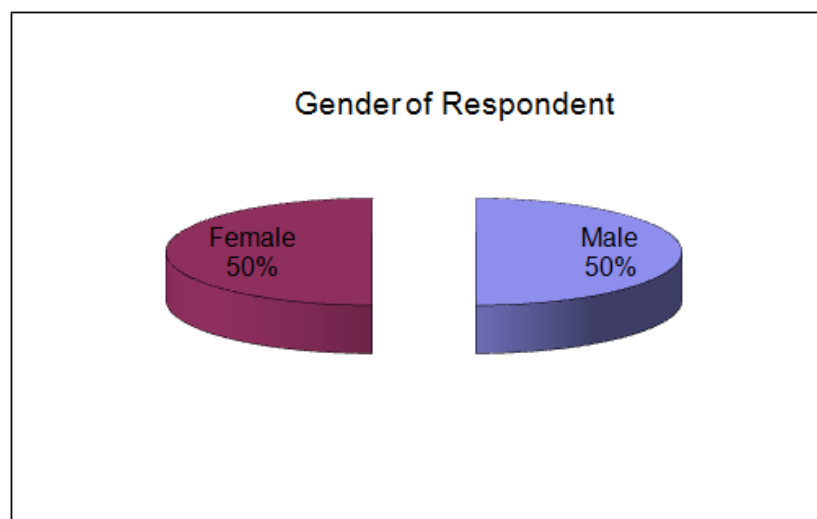
## **Subscriber and Non-Subscriber Study Findings**

### **Residential Community Subscriber and Non-Subscriber Telephone Survey**

#### **Sample Description**

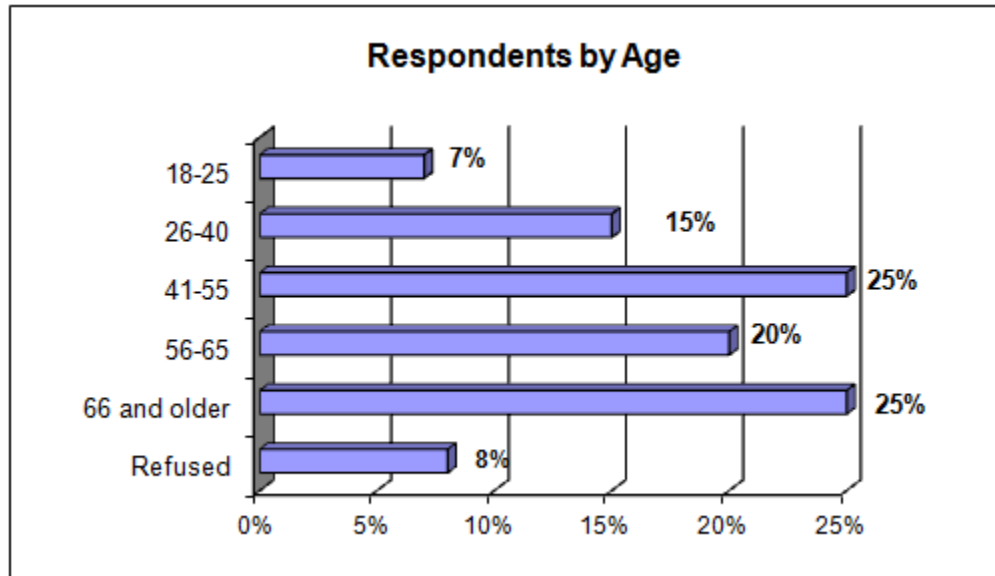
The sample consisted of 800 randomly selected Louisville Metro franchise area residents. A screening question was used to ensure that respondents only included those who made the decision as to whether the household subscribed to cable television service or shared equally in that decision. All respondents were also required to be 18 years or older and live in one of the communities represented by the Louisville Metro Government and within the Louisville Metro franchise area.

Males and female respondents were split evenly (50%/50%) among the responding sample. Although there was no quota established for gender, the random sample led to an even representation between men and women in the franchise area.



The sample represented a wide range of ages. Among those responding, the largest reported age categories were between 41 and 55 years old and 66 and older (each 25% respectively).

Younger and middle-age respondents, however, were also well represented. Seven percent (7%) of the sample was 25 or under; 15% was between the ages of 26 and 40 and 20% was between 56 and 65 years old.



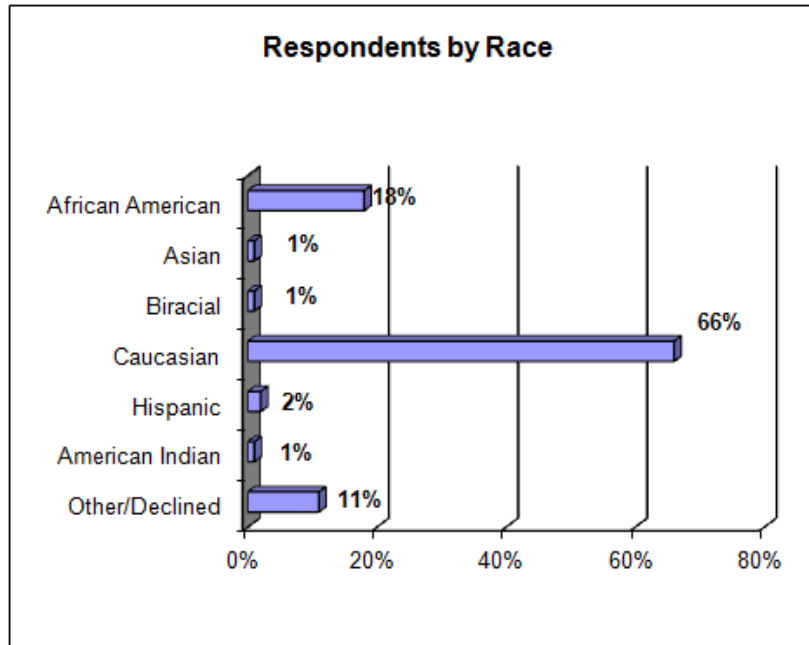
We also queried the sample about having children under the age of 18. Twenty-eight (28%) indicated they had children under age 18 in the household.

The sample represented a diverse range of education levels. Twenty-eight (28%) of the sample were high school graduates. Twenty-two percent (22%) had some college degree or a trade school license. Twenty-eight percent (28%) had a college or four year degree and 13% indicated having a post graduate degree.

Survey respondents reported home ownership at 71% which is a little higher than the census for the region which reports homeownership at 63%.

The majority of the respondents were Caucasian (66%; 4% below the figure in the 2010 census). African Americans made up 18% (4% below the census) of the sample. Two percent (2%) reported that they were Hispanic. Asians, American Indian and Biracial each accounted for one percent (1%). Eleven percent (11%) opted not to respond to the question on race/ethnicity. By

race, the sample reflected the census for the region in all categories but Asian responses (2% reported in the census).



Three in four respondents reported household income and the reported levels are consistent with the census. In the responding sample, 11% reported incomes greater than \$100,000 and the census finds 14% earn more than \$100,000. On the flip side, the census reported 31% earned less than \$25,000, and in the responding sample 16% reported earning less than \$25,000. Twenty-nine percent (29%) of the responding sample did not respond to this question.

We also queried the sample about their employment status. Forty-five percent (45%) indicated they were employed, the Census reports 54% employed, and 4% indicated they were “seeking employment.” Additionally, 35% indicated that they were retirees and 5% indicated they were not able to work because of a disability.

### **Non-Subscribers to Insight/Time Warner Cable Television Service**

Non-subscribers (N=358) were divided into those who had never subscribed to television services and those who had subscribed at one time, but no longer subscribed. Thirty-nine percent (39%) of non-subscribers said they had never subscribed to cable television services in the community.



Those who had **never** subscribed to cable television (N=140) in the community indicated the primary reasons for never subscribing were either cost (18%) or that they were a satellite subscribers (13%). The next most common reasons (12%) for never subscribing were they didn't want/don't watch TV or it was not available (8%). Another 3% said that they preferred to watch free over-the-air TV channels, 2% were AT&T U-Verse cable subscribers, and 2% indicated they had an unfavorable view of Insight/Time Warner.

Those who had previously subscribed to cable television services (N=218), but were not currently subscribing were most likely to say (top 3 responses) that they discontinued service because of cost (44%), they became satellite subscribers (12%), or they had experienced problematic service issues (8%).

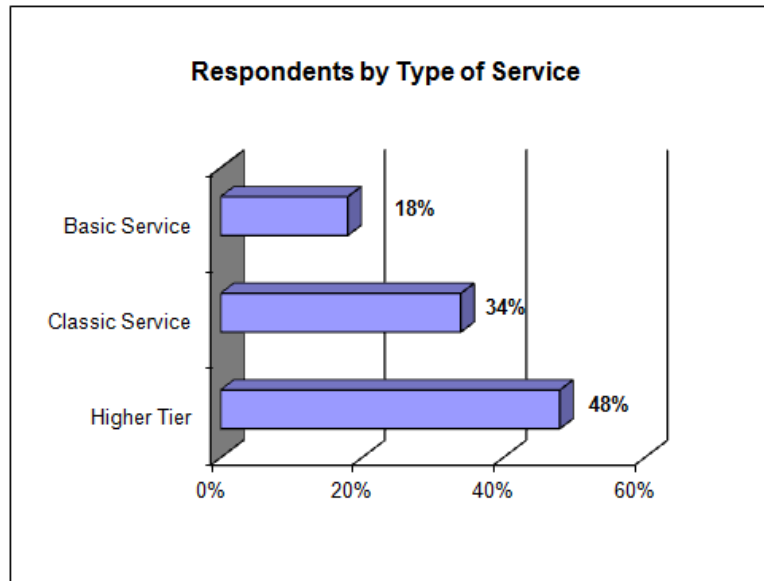
All non-subscribers were asked if there was anything that Insight/Time Warner could do to engage them to subscribe to cable television (N=358). The most frequent response was nothing (60%), with lower prices the next frequent at 17%. This was followed by offering a la carte programming (2%) and offering a very basic package for free (1%).

### **Subscribers to Insight/Time Warner Cable Television Service**

Subscribers were asked how long they had subscribed to Insight/Time Warner cable television at their current address. The range reported was between 1 to 50 years with 10.1 being the average number of years. The most common response was 1 year given by 13% of subscribers. The majority of the sample (N=171) had subscribed to cable television at their current address within the past five years (39%). Approximately 27% of respondents had been cable subscribers for six to 10 years, while 25% had been cable subscribers for 11 to 20 years, 7% had been subscribers for between 21 to 30 years and 2% had been subscribers for more than 31 years.

Eighteen percent (18%) of subscribers have Basic cable television service that has 24 channels. Additionally, 34% have "Classic Service" which also includes the broadcast networks and 44 additional channels. Forty-eight percent (48%) indicated they subscribed to a higher tier package, which has the broadcast networks and a larger menu of digital cable channels.

Fifty-four percent (54%) indicated they also subscribe to a service package with high definition channels and when probed further as to which channels they mostly watched, 38% said they mostly watched high definition channels.



The average monthly Insight/Time Warner bill reported by respondents in the Louisville Metro franchise area is \$124.90, including all services and fees. The most commonly reported Insight/Time Warner bill (the mode) was \$150 a month, with Insight/Time Warner bills ranging from \$14 to \$325 a month.

**Average Monthly Insight/Time Warner Subscriber Bill = \$124.90 per subscriber**

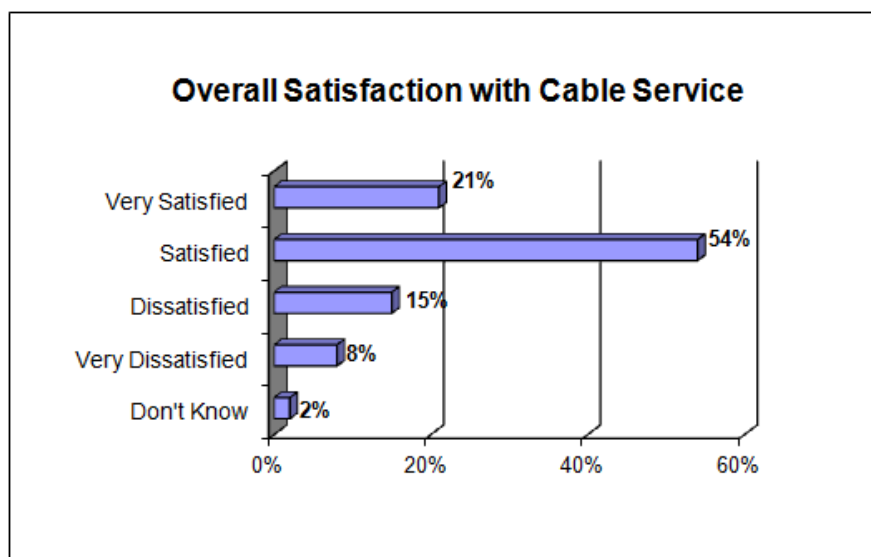
When considering the average monthly bill, it is helpful to try to discern the average cost of cable television per resident in Louisville. However, the practice of bundling services (television, internet and telephone) has led to confusion about how much each service costs per month.<sup>12</sup> In Louisville, respondents with basic cable television had an average monthly bill of \$94 per month, including all services (video, phone, internet) while those that subscribe to a digital tier beyond the "Classic" service of 68 channels, have an average monthly bill that is \$51 more per month at \$145 per month (including all services). Additionally, customers who report that they have an

<sup>12</sup> Martelle, Jonnelle. "10 Things Cable Companies Won't Tell You." *Marketwatch*. Retrieved February 23, 2013 from Yahoo Finance at <http://finance.yahoo.com/news/10-things-cable-companies-won-160849115.html>.

HD tier (54%) reported spending \$25 more a month than those without high definition service (\$136 v. \$111).

### **Overall Satisfaction**

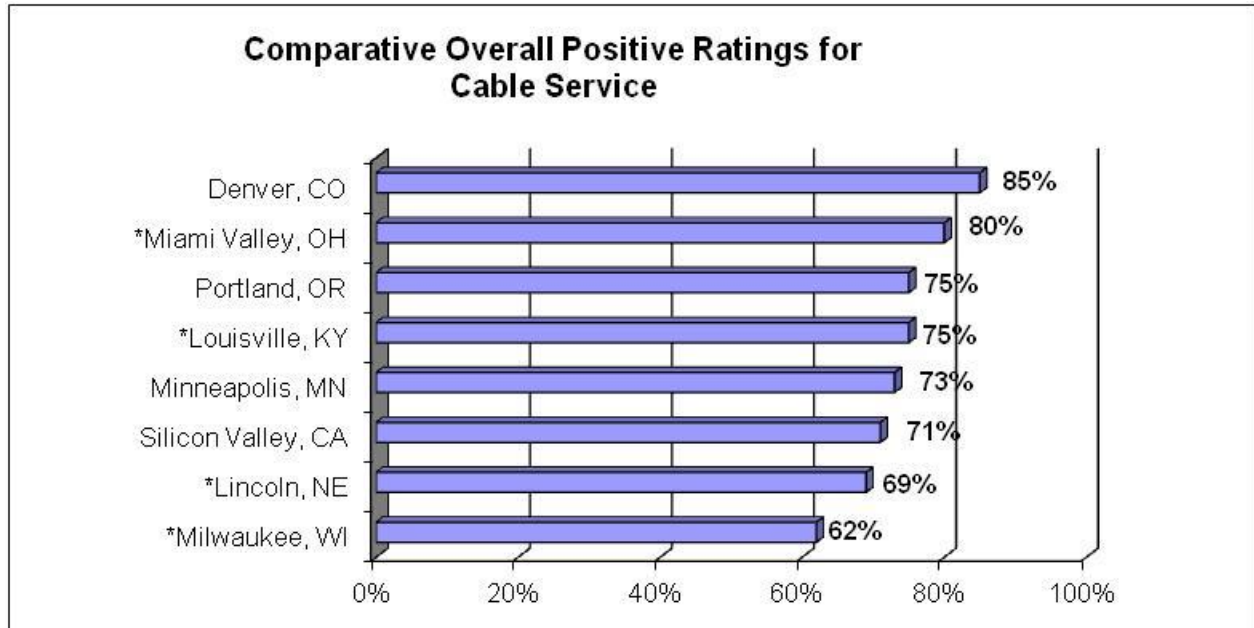
Residents of the Louisville Metro franchise area report various levels of satisfaction with Insight/Time Warner cable television. Seventy-five percent (75%) of Insight/Time Warner subscribers described themselves as either “very satisfied” or “satisfied” with cable service. This however leaves 1 in 4 dissatisfied with their cable service. The following graph demonstrates the overall customer satisfaction rating.



To offer a comparison of the Louisville Metro ratings with other communities, the following chart demonstrates findings among selected communities<sup>13</sup> in needs assessments conducted by CBG Communications and its Team Partners. The communities indicated with an asterisk are served by Time Warner. Members of the cable industry, including Time Warner, are found to be

<sup>13</sup> While not all similarly sized communities to the Louisville Metro franchise area, the comparative data in this chart are other geographically diverse communities where the authors of this study conducted the survey research regarding cable television service. Comcast is the primary franchise holder in Denver, Portland and Silicon Valley in California. Time Warner was the franchise holder in Minneapolis at the time of the study. A comparison of positive ratings is used. A telephone based residential study, when conducted, is typically done once during a franchise term as part of the franchise renewal process.

among America's most hated companies. Of the top 15 "hated" companies in 2012, Time Warner ranked #6, behind Comcast (#4) and Charter Communications (#3).<sup>14</sup>



Respondents who did not indicate being "very satisfied" with Insight/Time Warner service were asked if there was anything the company could do to improve their rating. Most often subscribers said the company's overall rating could be improved if **rates were lowered** (N=44). They also suggested that the company offer **better programming** (N=10), **fix outages and service interruptions** (N=9), offer **more HD channels** (N=8) and offer **a la carte programming** (N=5). These same issues were echoed in "other" responses.

### **Service Features**

Subscribers were asked to rate specific features of Insight/Time Warner's service. They were asked about the picture and sound quality, the variety of programming packages available, the cost of cable subscription, billing practices, communications regarding rates and programming changes, service and repair response and the time window for appointments.

<sup>14</sup> Spector, Dina. (29 June 2012). "The 15 Most Disliked Companies." Business Insider. Retrieved February 23, 2013 at <http://finance.yahoo.com/news/the-15-most-disliked-companies-in-america.html>.

The following chart details their responses to each of these questions on a scale from “very satisfied” to “very dissatisfied”:

	<b>Cable TV Service Feature</b>	<b>Very Satisfied</b>	<b>Satisfied</b>	<b>Dissatisfied</b>	<b>Very Dissatisfied</b>	<b>Don't Know</b>
a	The <b>picture</b> quality	30%	65%	3%	1%	1%
b	The <b>sound</b> level consistency across channels	19%	59%	19%	3%	1%
c	The <b>programming packages</b> available	17%	51%	23%	4%	5%
d	The <b>cost</b> of your cable service	7%	34%	37%	19%	3%
e	<b>Billing</b> practices	12%	65%	13%	5%	5%
f	<b>Communications</b> regarding rates and programming changes	8%	51%	25%	9%	7%

Ninety-five percent (95%) of interviewed cable subscribers indicated that they were “very satisfied” or “satisfied” with picture quality. Seventy-eight (78%) of cable subscribers indicated being “very satisfied” or “satisfied” with sound level consistency across channels, but this leaves about 1 in 4 dissatisfied or very dissatisfied with this service issue. Sixty-eight percent (68%) were “very satisfied” or “satisfied” with the programming packages available, again leaving more than 1 in 4 dissatisfied or very dissatisfied with available programming packages.

There was a significant amount of dissatisfaction concerning the price of cable subscription with 56% expressing some level of dissatisfaction.

### **Communication with Cable Subscribers**

The second biggest category of dissatisfaction was communications. Specifically, 59% were satisfied (while 34% were dissatisfied) with the cable company communicating changes in rates and programming.

Seventy-seven percent (77%) of cable subscribers also expressed some level of satisfaction with Insight/Time Warner billing practices, but this leaves roughly 1 in 5 expressing some level of dissatisfaction with this service aspect.

### **Service Response Issues**

All subscribers were asked about how satisfied they were with Insight/Time Warner's services regarding their service and repair response and the time window for service appointments. Seventy-seven percent (77%) of cable subscribers expressed some level of satisfaction with Insight/Time Warner's service and repair response, while 16% of subscribers indicated some level of dissatisfaction with service and repair responses.

Subscribers were also asked about the available time windows for service appointments. Sixty-eight percent (68%) of cable subscribers were either Very Satisfied or Satisfied with the time windows available for service appoints, which leaves 1 in 4 subscribers expressing some level of dissatisfaction with the time windows for service appointments.

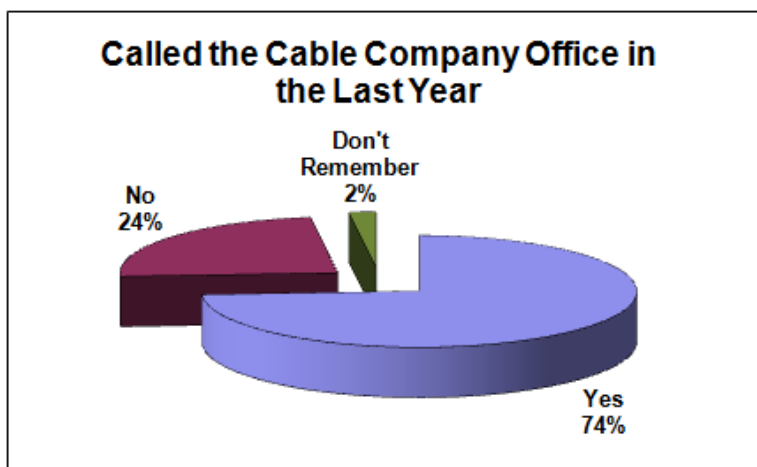
	<b>Service Response Issue</b>	<b>Very Satisfied</b>	<b>Satisfied</b>	<b>Dissatisfied</b>	<b>Very Dissatisfied</b>	<b>Don't Know</b>
a	Service and repair response	20%	57%	11%	5%	7%
b	The time window for service appointments	16%	52%	18%	6%	9%

### **Local Cable Office**

Subscribers were also asked how important it was to have a local Insight/Time Warner office to resolve issues and 91% expressed some level of importance (Very Important – 60%, Important – 24% and Somewhat Important – 7%). This high level of importance to subscribers should be taken into consideration if Insight/Time Warner is considering closing or relocating their local office.

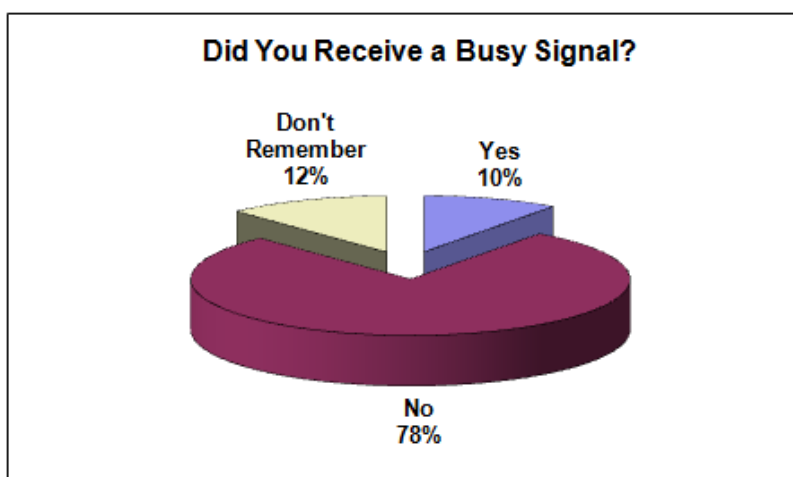
### **Calls to Insight/Time Warner**

Customers were then asked if they had called Insight/Time Warner in the past year. Seventy-four percent (74%) said they had called Insight/Time Warner.



These respondents were asked the reason for their call. The most common reason for calling the cable company was a **cable outage/loss of signal** (21%). Another 13% called about a problem with their cable modem/high speed internet service and 11% had called regarding **billing questions**. Additionally, 9% called about a **signal quality problem**, 5% called regarding a problem with their mini-box and another 5% called regarding a problem with their cable phone service.

Seventy-eight percent (78%) of those who had called Insight/Time Warner in the past year said they did not receive a busy signal. Ten percent (10%) said they had received a busy signal, and 12% said they could not remember.



The Louisville Metro customer service standards found in the '98 Ordinance, Section 17 (2)(c) related to busy signals indicate that callers should receive a busy signal “under normal operating conditions” less than 3% of the time. While our findings indicate that Insight/Time Warner is potentially not compliant in this area, it is important to note that 21% of the calls placed were during “an outage” (potentially not a “normal operating condition”, depending on the cause).

Another key reason for calling was what would be considered a normal operating condition and that is a “billing question.” Addressing better communications concerning typical billing issues could result in a decrease in call volume, which would lead to better compliance with telephone answering standards.

Cable subscribers that called the cable office were also asked if customer service representatives answered their calls within 30 seconds, including the time left on hold and 47% indicated that they had not.

According to the data collected in this study, Insight/Time Warner scores below the '98 Ordinance (Section 17 (2) (b)) benchmark in regard to hold and transfer time which stipulates a less than 30 second hold time and an additional 30 second transfer time be met with 90% efficiency.

Survey respondents were asked how soon after they called to report the problem did the cable company begin to correct that problem. Thirty-eight percent (38%) of respondents said the cable company began working on their problem “the same day it was reported.” Twenty-two percent (22%) said the cable company began working on the problem “the next business day.” Twenty-five percent (25%) reported that the cable company began working on the problem “days later.” Five percent (5%) indicated it was “about a week” and 1% said it was “about a month.” Five percent (5%) said the problem was “never resolved.”

The Louisville Metro benchmarks for customer service stipulate that the cable company must begin working on outages within 24 hours of problem notification ('98 Ordinance, Section 17 (3))

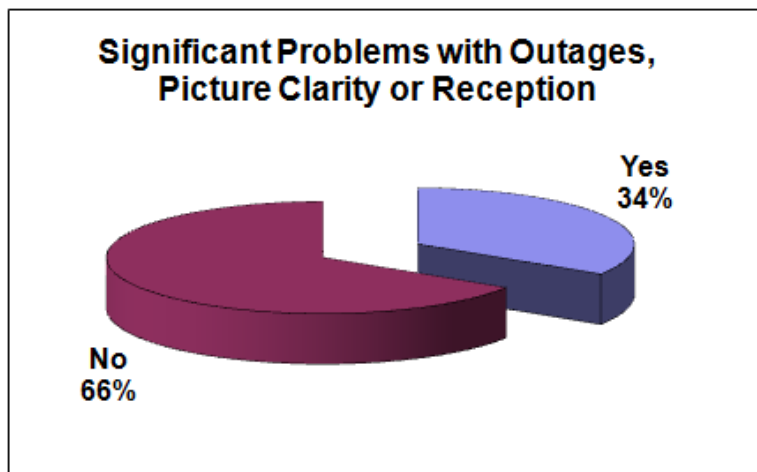


(b)) and must begin working on resolution of other problems within 36 hours of notification ('98 Ordinance, Section 22 (1)).

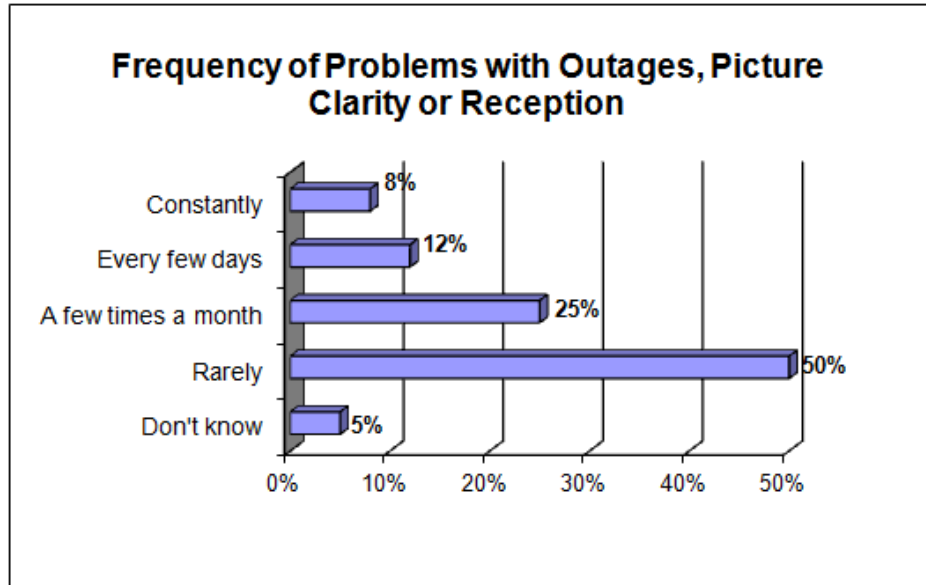
Cable subscribers were also asked if they were satisfied with the length of time it took Insight/Time Warner to resolve the issue or problem they had called about. Seventy-one percent (71%) said they were “satisfied” or “very satisfied”. This leaves 1 in 4 subscribers dissatisfied with the length of time it took Insight/timer Warner to resolve the issue or problem that they had called about.

### **Outages and Picture Quality**

Cable subscribers were asked if they had experienced significant problems with outages, picture clarity or reception difficulty. Thirty-four percent (34%) responded “yes.”



These individuals were asked about the frequency of outages, picture clarity or reception problems (N=149). Of those who had experienced these, 25% indicated that it happened a few times a month, while 50% indicated that the problem rarely occurred. Twelve percent (12%) reported that problems occurred every few days and another nine percent (9%) said the problems occurred constantly.



When considering those that had experienced outages, picture quality or reception problems that lasted 48 hours or more, 38% said they had called Insight/Time Warner to ask for a refund or credit for the period of time without service. Of those who called to request a refund/credit, 46% indicated that they had received one and 54% said they had not received a refund/credit.

Specific channels where respondents had experienced difficulties were also explored. The following were the top categories of channels mentioned: local channels, High Definition channels, the Movie Channel, Channels 1 thru 18 and the 600 series of channels. However, the most frequent response was “all channels.”

Subscribers were also probed regarding any problems they might have seeing program titles a few days in the future for any of the channels displayed on Insight/Time Warner’s interactive Program guide. Twenty-five percent (25%) of subscribers answered “Yes”. They went on to further identify which channels did not have future program information available on the interactive program guide. The top channel categories mentioned were: All of the channels (44%), The Movie Channel (4%), the On Demand (4%) and Local Channels (2%).

**Emergency Information**

Subscribers were asked which channel they turn to when the Louisville area is faced with an emergency situation. The top channels mentioned were: WHAS (16%), WLKY (11%), Local broadcast stations (8%), The Weather Channel (8%), WAVE (7%) and Channel 4 (7%). The emergency alert practice of interrupting programs to provide national weather service information was raised as unsatisfactory by local broadcasters and members of the community. This question was posed to better understand how cable subscribers utilize television during an emergency. It is clear that the wide majority of television viewers turn to the local broadcast affiliates for important up to date information in an emergency situation.

**Public, Education and Government Access Programming (PEG)**

All survey respondents (subscribers and non-subscribers) were asked about their awareness, viewership and experience with local access programming appearing on the cable system.

Sixty percent (60%) of all respondents reported being aware of these channels and 40% were unaware. Among subscribers, awareness of the access channels was reported by 67% and among non-subscribers awareness was reported by 51%.

Non-subscribers, who were aware of the channels (N=181), were asked a series of questions about their experience with PEG programming. Non-subscribers were first asked what channels they were aware of. This was a top of head recall question, without any prompts. The following chart illustrates that MetroTV/Government Access Television Channel 25 had the highest awareness in the non-subscriber community (14%), followed by Insight/Time Warner Public Access/Community Television Channel 98 at 7%. Seventy-eight percent (78%) indicated another channel with local community programming, like KET Kentucky Education Television, or they didn't know any specific PEG channels when asked.

**PEG Channels Mentioned by Non-Subscribers Aware of Local Access Programming**

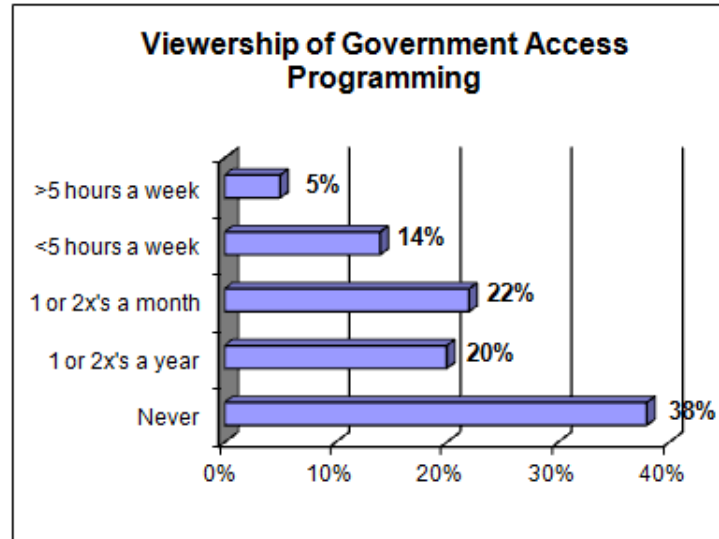
Channel 25 (MetroTV)/Government Television	14%
Channel 98 (Insight/Time Warner Public Access in Louisville/Community Television)	7%
None of the above	78%

All non-subscribers (N=358) were asked if they had an interest in being able to receive, local government, education, community and public access programming and 32% (N=113) said “Yes.”

**Government Access**

Cable subscribers who were aware of the local access channels were posed a series of questions related to the programming that appears on each of the offered PEG channels.

Local government access programming appears on MetroTV/Government Access Channel 25 and is regularly viewed by 41% of responding cable subscribers in the Louisville Metro franchise area. When measuring how frequently the programming is viewed, 5% of respondents reported that they watched more than five hours a week, and another 14% described themselves as weekly viewers who watched less than five hours a week. Twenty-two percent (22%) reported watching the channel a couple of times a month. An additional 20% indicated that they watched the channel a couple of times a year. Thirty-eight percent (38%) of subscribers reported that they never watched government access programming.



These numbers indicate a significant level of viewership for government access programming. Specifically, when considering the viewership of the access channels in Louisville Metro Franchise area, it is useful to apply some standard principles of viewing audience measurement. The Nielsen Company is the primary measurer of media engagement in the United States. One of the numbers generated by Nielsen is referred to as CUME. CUME is an acronym that represents “cumulative audience.” It is defined by the television industry as the total, non-duplicated audience for a program or channel over a given time period. CUME is expressed as a percentage of the total television household universe (the audience measurements shown below have been adapted to reflect only multichannel video subscription households). When measuring CUME, a viewing household is counted once no matter how many times the channel or program is viewed.

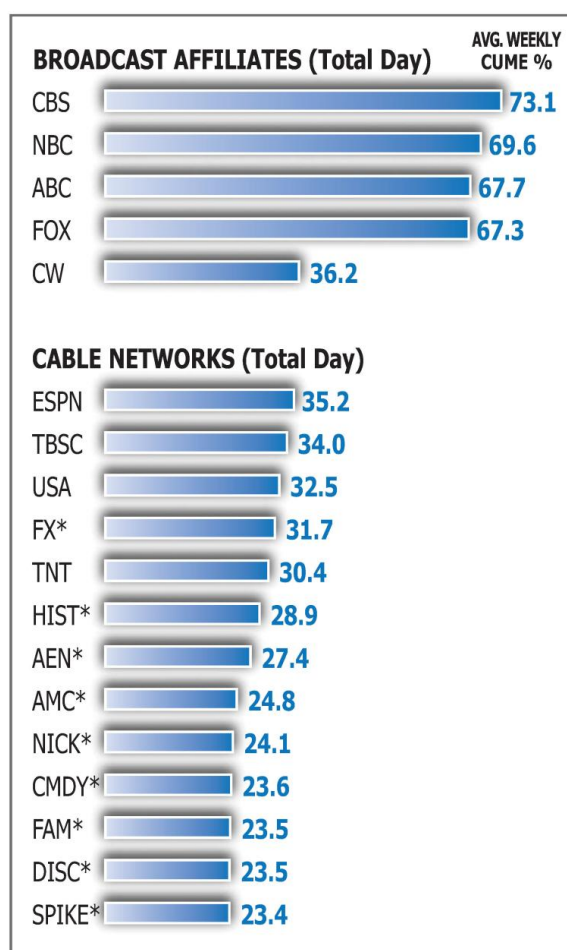
In Louisville Metro, the weekly CUME reported by cable subscribers aware of the access channels in our study for the government access channel is 19%. In other words, 19% of cable subscribers report at least viewing the channel at some point in a given week. While this number may not on the surface seem like a considerable number of viewers, when one compares it against the weekly CUME of the most popular cable networks, one can see that in a universe of more than 300 channels, having 19% report they at least stopped on your channel at some point during the week has significant meaning. This percentage coupled with the niche nature of cable television, where the vast majority of cable networks have relatively small, weekly CUMES and

even the top networks have CUMES of approximately  $\frac{1}{4}$  to  $\frac{4}{10}$  of the total viewing audience, is important.

Figure 1: Top viewed cable networks by average weekly multichannel video household CUME (cumulative media exposure) in percentages (4th quarter, 2011)<sup>15</sup>

### Reach: Broadcast vs. Cable

While cable penetration (wired and unwired) currently stands at approximately 90% of TV households, no individual cable network comes to anything near that by the end of an average week. Not one cable network tops 40%.



Source: The Nielsen Company  
Television Activity Report  
NHI 4th Qtr'11  
Estimates include Live+7 days

\*Cable networks did not telecast during the entire daypart.

<sup>15</sup> Television and cable trends are reported by the Television Bureau at [http://www.tvb.org/media/file/TV\\_Basics.pdf](http://www.tvb.org/media/file/TV_Basics.pdf). Accessed December 14, 2012.

While not a direct comparison because of the differing measurement basis (all multichannel video subscription households [cable, satellite, etc.] nationally versus cable television subscriber households locally), both represent cumulative weekly audience measurements which show that even the most popular channels will not garner a majority of viewing households in a large multichannel environment. Accordingly, local government access programming can be seen as attracting a healthy number of viewers, with 19% of the cable households in the tested franchise area watching weekly (5% more than five hours a week).

Those subscribers that watched government access programming on Channel 25 on a weekly basis were asked a series of questions related to picture, sound and informational value. Seventy-seven percent (77%) described picture quality as “excellent” or “good” with 20% describing it as “fair” or “poor.”

The sound quality scored similarly with 81% describing it as “excellent” or “good” and 16% describing it as “fair” or “poor.”

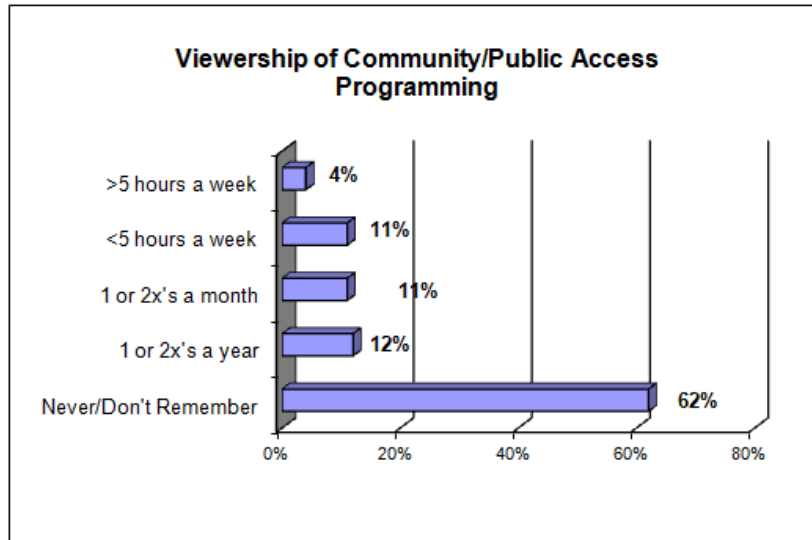
The informational value of government access programming received very high scores, with 82% rating it “excellent” or “good” and 14% describing it as “fair”.

### *Community/Public Access*

#### Insight/Time Warner Public Access Channel 98

The Insight/Time Warner Public Access Channel 98 supports the production and distribution of local community and public access programming, including: religious programs, music programs, fishing and outdoors programs, political shows and more. Twenty-six percent (26%) of responding Louisville Metro cable subscribers reported viewing Channel 98 at least each month. When asked how often they watched programming on Channel 98, four percent (4%) of respondents reported that they watched more than five hours a week, and another 11% described themselves as weekly viewers who watched less than five hours a week. Eleven percent (11%) reported watching the channel a couple of times a month and 12% indicated that they watched the channel a couple of times a year. Sixty percent (60%) of subscribers reported that they never

watched community and public access programming on Insight/Time Warner Public Access Channel 98.



Again, those not familiar with the niche viewing habits of cable television audiences, may wrongly perceive that these numbers indicate a lack of significant viewership for community access programming, but that would be an incorrect conclusion. As cited in previous examples, only the top cable networks have a weekly cumulative audience of greater than 25%.

Local community access programming on Channel 98 in the Louisville Metro franchise area, by comparison, is attracting a significant number of viewers with 15% of the cable subscriber households in the tested franchise area watching weekly (4% more than five hours a week). This finding, coupled with the important role of providing residents an outlet to increase the marketplace of ideas, creates a successful and important community access scenario in the Louisville Metro area.

Those subscribers that watched community access programming on Channel 98 on a weekly basis were asked a series of questions related to picture, sound and programming quality. Seventy-four percent (74%) described picture quality as “excellent” or “good” with 22% describing it as “fair”.

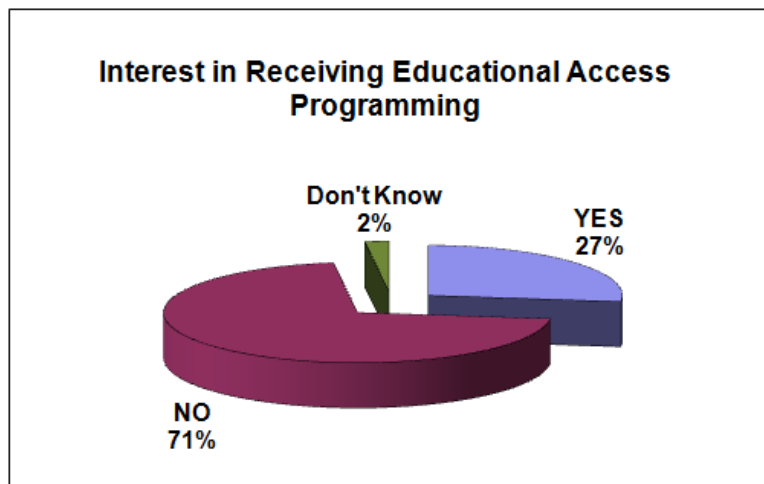


The sound quality on Channel 98 scored higher with 78% describing it as “excellent” or “good”, 18% describing it as “fair” and 2% indicating “poor.”

The overall programming value of community and public access programming on Insight/Time Warner Public Access Channel 98 received the highest scores with 80% rating it “excellent” or “good”, 18% describing it as “fair” and 2% as “poor.”

### **Educational Access**

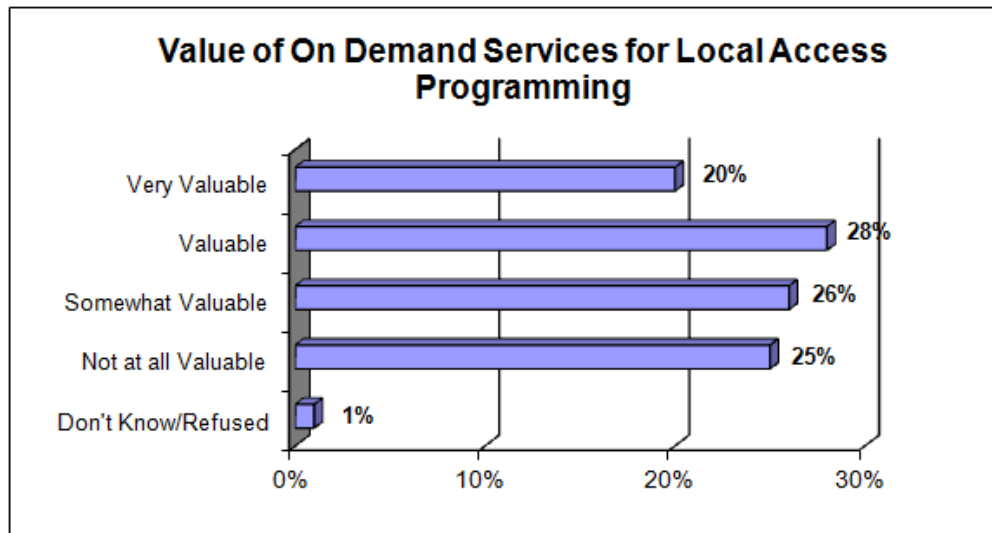
Currently Louisville Metro franchise area residents do not have an Educational Access Channel on the cable line-up. All subscribers were asked if they had an interest in being able to receive educational access programming. Twenty-seven percent (27%), over 1 in 4 subscribers indicated that they would like to receive educational access programming. The 2010 Census reports 29% of households in the Louisville area have children in the home which is consistent with the telephone survey which reported 28% of respondents having children in the home less than 18 years of age.



### **On-Demand**

Subscribers who were weekly viewers of PEG Access programming were asked how valuable it would be to have local access programming provided on-demand on the cable system. Seventy-four percent (74%) expressed some level of value for having local access programming available

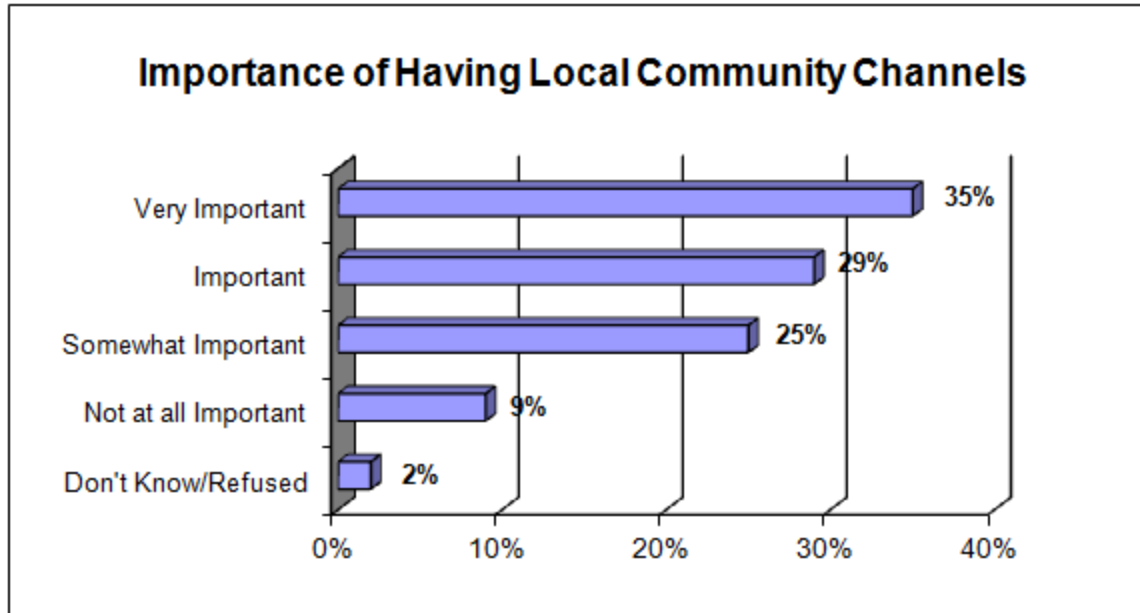
on-demand (Very Valuable – 20%, Valuable – 28% and Somewhat Valuable – 26%), with 1 in 5 saying very valuable.



This high level of value for on-demand access programming from responding subscribers suggests that on-demand access is of strong value to the residents of the Louisville Metro franchise area.

### **Importance of Access Programming**

Regardless of how often cable subscribers watched local access programming, all subscribers were asked about how important it was to have local access channels available to subscribers on the cable network. Eighty-nine percent (89%) expressed some level of importance for having local access channels available on the cable network (Very Important – 35%, Important – 29% and Somewhat Important – 25%).



Again, this level of importance indicates how valuable the subscribers in the Louisville Metro franchise area find the local community access channels.

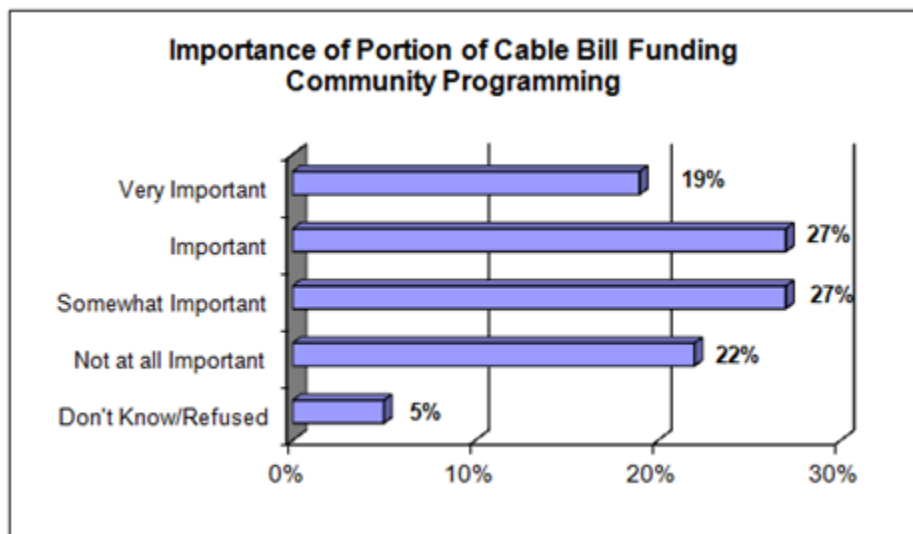
#### **Future Access Programming**

All cable subscribers were also asked what type of local programming they would like to receive on the cable system. The top five types of programs mentioned were: local sports, educational programming, community and neighborhood news, local children's and youth programming and art and culturally focused programming.

#### **Funding Access Programming**

A question was posed to all cable subscribers related to financial support for PEG access channels. Subscribers were asked how much they would be willing to pay per month, like subscribers in other areas, who have a portion of their subscriber cable bill go to support the production of programming like they see on MetroTV and Public Access Channel 98. This figure reflects the portion of the cable bill that respondents think is appropriate for the support of locally produced government and public access programming. Thirty-eight percent 38% of subscribers responded with a willingness to pay. Accordingly, the range of support was from \$0 to \$20.00, with \$1.00 being the average.

Additionally, all subscribers were asked how important is it to have a portion of their future cable bill go to specifically support local community programming in the Louisville Metro franchise area. Seventy-three percent (73%) of subscribers expressed a level of importance in having a portion of the cable bill dedicated in support of local community programming. In other words, 3 in 4 subscribers support the idea that a portion of the money they pay each month to bring cable television into their homes would go to support programming on MetroTV 25 and Public Access Channel 98.



### **Final Comments**

All 800 respondents surveyed were provided a final opportunity to add any additional thoughts about their cable television service, a majority indicated that there was “nothing” else to add (66%). Among those who did respond (N=272), the most frequent responses included: comments again emphasizing that cable costs too much (11%/N=91); comments indicating unhappiness with programming and packages (4%/N=30); comments expressing a general dislike/dissatisfaction for Insight/Time Warner (3%/N=27), especially since Time Warner took over; comments suggesting that there should be more competition in the cable market to help lower prices or so that they could switch providers (3%/N=22); comments expressing a dissatisfaction with reception services and picture/sound quality (3%/N=20) and comments expressing a dissatisfaction with customer service, both onsite with installation personnel and at

the office (2%/N=17). Four percent (4%/N=28) also indicated that they were satisfied with Insight/Time Warner.

## **Town Hall Meetings**

In an effort to ensure that everyone in the Louisville Metro franchise area had an opportunity to participate in the Community Needs Assessment, Louisville Metro held four Town Hall Meetings: one at the East Government Center, one at the Southwest Government Center, one at the South Central Government Center and one at Metro Hall to ensure that they were geographically dispersed. The Town Hall Meetings were heavily promoted, including newspaper announcements, announcements on MetroTV Channel 25, promotion via the Louisville Government Newsroom website and promotion on local broadcast channels and on their websites.

The comments received in the Town Hall Meetings were insightful and echoed the attitudes, opinions, needs and interests expressed in the telephone survey.

Specifically, the following issues were noted:

- Community access channel programming was highly engaging for the Louisville Metro area.
- Community access programming adds important voices and messages to the community.
- While Access program production was described as “excellent”, the facilities that support the production of local access programming need improvements. Specifically, the quality of the lighting and audio in the studio and the lack of production support staff needs to be improved to ensure production value.
- There is a significant lack of marketing of community programming. More advertising and promotional materials need to be improved.
- There is a lack of information about local access programs on the programming guide and that to ensure their full impact, Insight/Time Warner needed to provide good descriptions on the guide.

- The ability to record local access programs needs to be added to Insight/Time Warner's services so that residents can watch them at a later time. Again, for recording purposes, the Program Guide descriptions are key to allowing residents to record the local programs they want to watch.
- The program guide issues apply to both MetroTV and Public Access Channel 98, to ensure that residents can plan to watch and record what they are interested in receiving.
- Severe pixilation problems and lack of responsive customer service was also an issue among residents.
- Cable rates have gone up, while service has gone down. Additionally, increases in cable rates did not correlate with additional channels or more programming package varieties. In fact, the correlation was for increasing rates with diminishing channel offerings.
- There was an overall consensus among participants that the cable provider was a "monopoly" in the community and they were "stuck." There needs to be more competition in cable providers in the community.
- There was also a significant level of unhappiness with what the attendees described as "dishonest" marketing and aggressive solicitation related to discounts and specials that expired without full communication as to what would follow.
- A significant portion of residents discontinued their service and opted for satellite or free over-the-air television rather than to engage with the cable company because of how they felt about their business practices.
- The sound level is inconsistent.
- The system's reliability is an issue.
- You typically have to go "up the chain" in order to get a proper response to your problem or question.
- There are technical problems with the set tops, including often seeing a screen that says "one moment while your channel comes in"
- Participants wanted to be able to create their own packages of channels.
- Participants noted not getting 30 days prior notification of changes in rates or programming.
- The signal degrades when there are storms.
- Callers to the cable company experience busy signals for lengthy periods of time.

- Regarding emergency information, they primarily rely on the local broadcast stations first.
- It is important to have government meetings on MetroTV.
- Participants wanted Louisville Metro Government to hold “Insight’s feet to the fire”.
- They would like to see Insight/Time Warner “reinvest in the community”
- Various Installation and maintenance problems were noted by participants.
- Participants noted outages that lasted long periods of time.
- The experience at the Insight office has been good.
- Non-subscribers indicated that Insight had been slow to add HD channels and that is why they went to DirectTV.
- Participants would be interested in getting access programming on-demand.
- Participants would be interested in getting more local educational programming, especially adult education classes and higher education programming.

## **Residential Community Conclusions and Recommendations**

As the Louisville Metro Government continues discussions regarding the cable television franchise area renewal proceedings, based on the findings of this comprehensive cable-related needs and interests' ascertainment among residents in the area, we recommend that the following issues be given consideration:

- 1. Customer Service** – There are certain areas of Insight/Time Warner's service that need enhancement, and areas where subscribers' responses indicate non-compliance with Louisville Metro franchise ('98 Ordinance) Customer Service Standards. These are:
  - a. Telephone Answering Standards – Ten percent (10%) of subscribers indicated that they had received a busy signal when calling the company, which is greater than the less than three percent (3%) level specified by the '98 Ordinance. Additionally, forty-one percent (41%) indicated that their call had not been answered within thirty (30) seconds, including the time left on hold, which would be significantly greater than the tolerance allowed under the '98 Ordinance Customer Service Standards. Primary reasons for calling, other than signal outage, were related to billing questions and other technical issues—both controllable customer service issues.
  - b. Outages/Picture Quality and Restoration of Service – Approximately 1 out of 3 cable subscribers (34%) reported they had experienced an outage or picture clarity issue. Forty-five percent (45%) of subscribers reported that outages or picture clarity issues occurred at least a few times a month (8% indicating constantly). These were also the most common reasons for calling the cable company. Also, important to franchise renewal proceedings are two customer service issues around restoration of service - the satisfaction level that subscribers have with the length of time it takes to restore service and credit



for down periods on the cable system. Credits on subscriber bills should be a proactive process and not a reactive process for only those subscribers calling.

- c. Communicating with Cable Subscribers – Over 1 in 3 subscriber respondents indicated they were “dissatisfied” or “very dissatisfied” with Insight/Time Warner’s communications related to rate and programming changes. Clearly, Insight/Time Warner needs to improve how these are communicated to cable subscribers and in what platforms they communicate these issues. For example, the company might consider launching a broad television-based information campaign when channel realignments or rate increases are announced. This would likely reduce some of the 11% of subscriber respondents who indicated they called Insight/Time Warner about a billing question which in turn creates pressure on their telephone response times potentially contributing to the indications of their not being compliant with ’98 Ordinance customer service standards.
- d. Program Guide – One in 4 subscribers indicated that they had problems seeing program titles a few days into the future for all of the channels. Subscribers went on to indicate which individual and group channels they had the most problems not receiving future programming titles on. The top mentioned were “all of them” (as previously indicated), the local channels, the Movie Channel and On Demand.
- e. Having a Local Office – Virtually all subscribers indicated it was important (91%) to have a local cable office where they could speak to cable representatives about customer service issues.

All of these are areas that we recommend as focus areas with Insight/Time Warner in franchise renewal to see what improvements can be made to resolve the concerns indicated by subscribers and to work to enhance the means of monitoring these issues during the next franchise term.

**2. Technical Issues** – While most cable subscribers indicated they were satisfied with picture quality, 34% of subscriber respondents indicated that they had experienced a signal outage, picture clarity or reception problems, at most a few times a month (8% occurring constantly). The prompt and successful correction of these problems was reported by cable subscribers as a solution for increasing their overall rating of cable television service. A number of subscribers who had picture quality problems indicated channel difficulties with “all channels” and then mentioned specifically Channels 1 thru 18, local channels, HD channels, the Movie Channels, the 600 series, as well as a number of other channels. Of these subscribers, 27% indicated they were “dissatisfied” or “very dissatisfied” with the length of time it took to restore service. This speaks to how Insight/Time Warner staffs its technical operations in quality and number. Additionally, only 46% of subscribers who experienced an outage or lost their entire cable or had picture or reception problems lasting for 48 hours or more reported receiving a credit on their bill for the missed service. It is our recommendation, then, that Louisville Metro Government review these technical difficulties referenced by subscribers with Insight/Time Warner and how they might be resolved in the context of the franchise renewal. One additional observation related to technical issues is that customers experiencing outages or loss of signal (21%) and picture or signal quality problems (9%) called the cable company and as a result put pressure on the telephone response time. Improvements to picture quality will likely reduce call volume and ease the 41% of cable customers who called reporting hold times in excess of 30 seconds.

**3. Access Channels and Viewership** – Sixty-seven percent (67%) of subscribers and 51% of non-subscribers indicated that they were aware of the community access channels that appear on the system. Of those non-subscribers that were aware, 21% could name the channels they were aware of suggesting a high level of awareness and interaction with the channels.

Additionally, a significant portion of subscribers who were aware reported regular viewership of public, community, education and government access programming. For

example when considering viewership of MetroTV Government Access Channel 25, five percent (5%) of subscribers that are aware of access programming reported watching weekly for more than five (5) hours a week and another 14% respectively reported watching on a weekly basis for less than 5 hours per week. While these percentages may at first appear low, it is important to keep in mind that cable television's business model is rooted in niche channels rather than mass appeal channels. As an example, one of the top overall cable networks, ESPN, typically has a weekly cumulative audience of 35% of all television households. While not a direct comparison because of the different measurement basis (national multichannel video subscription [cable, satellite, etc.] household viewership at least once during the week versus local cable television subscriber access awareness household weekly viewership including some that are more than 5 hours a week), the 19% of Louisville Metro subscribers that report watching government access on a weekly basis should be seen as viable and healthy cable television viewership.

Access programming generally earns high marks for its information and overall value. The MetroTV Government Access Channel also earned good ratings for picture (77% Excellent and Good) and sound quality (81% Excellent and Good). The ratings for the Insight/Time Warner Public Access Channel 98 picture and sound quality were slightly lower, 74% and 78% respectively. Both however were lower than subscribers' overall satisfaction level with picture quality (95% Very Satisfied or Satisfied).

There was significant interest in seeing more of a variety of types of programming on the local access channels. The top categories of interest included:

- Local sports programming
- Local educational programming
- Louisville Metro community/neighborhood news,
- Local children's and youth programming
- Local arts, cultural and musical programming

Overall, the results from the survey show a high level of interest in local access programming, indicating that the franchise should have a strong focus on continuation and enhancement of such channels. Such enhancements should occur in a variety of areas, most specifically ways to improve the picture and sound quality, better television guide information about the channels, ensuring the channels are integrated into the system in a way that puts them on a level playing field with other channels and enabling the generation of greater amounts of programming in the categories specified.

- 4. Overall Subscriber Satisfaction** – Subscribers are generally satisfied with Insight/Time Warner cable service, with 75% indicated being “very satisfied” or “satisfied.”

Those that rated cable service more negatively (1 in 4) indicated that the primary reason was related to high rates or increasing rates. Thirty-four percent (34%) of telephone survey subscriber respondents who were less than “very satisfied” indicated that they would have a higher rating if Insight/Time Warner offered lower rates. An additional 7% indicated that their satisfaction would improve if the programming options were better, and another 7% indicated that improvements in outages and service interruptions would increase their satisfaction level. All of these areas are deserving of attention by Insight/Time Warner and would likely drive higher customer satisfaction with the service.

- 5. Non-Subscribership** – Of those who had never subscribed to Insight/Time Warner’s, the primary reason is the cost of service. This was true among those that had never subscribed to cable television service, as well as those respondents that had disconnected their cable television service. While some subscribed to a competing satellite service, the majority did not. These findings suggest that to further engage subscribers as Insight/Time Warner moves into franchise renewal it would need to offer new/alternative programming package options at a variety of affordable rates. Additionally, non-subscribers who opted for other service providers (satellite, AT&T U-verse, etc.) or disconnected service did so because of negative experiences with billing, customer

service, solicitations, sound and picture quality issues and programming changes. Insight/Time Warner would have to address these issues to increase subscribership.

These findings are one component of several factors for Louisville Metro to consider as efforts are made to address local cable needs and interests during franchise renewal proceedings.

**SECTION B**

**REVIEW OF COMMUNITY ORGANIZATIONS AND  
GOVERNMENT AGENCIES NEEDS AND INTERESTS  
WITHIN THE LOUISVILLE METRO FRANCHISE  
AREA**

## **GOVERNMENT AGENCIES AND COMMUNITY ORGANIZATIONS NEEDS ASSESSMENT**

### **Introduction and Methodology**

CBG and its Team Partner Dr. Connie Book worked on behalf of Metro to conduct a cable-related Needs and Interests Assessment with two other key Communities of Interest: government agencies (internal stakeholders); and community organizations, non-profits and businesses (external stakeholders) within the Louisville Metro area. Specifically, a wide range of government agencies and other organizations within, or providing services to those within, the Metro franchise area were provided an opportunity to complete an online cable-related Needs Assessment Survey. A diverse group of 102 government agency and other organization representatives responded to the survey.

A full Survey mark-up is included as Attachment B-1 to this Report and details respondents, as well as their answers to a variety of questions. The areas addressed in the Survey included use and viewership of PEG Access, including both MetroTV's and Public Access Channel 98's facilities, equipment and services; general and specific uses of cable television service; and the use of broadband, the internet and the Institutional Network (I-Net).<sup>16</sup>

At the same time, CBG in the fall of 2012 conducted both internal and external stakeholder focused discussions that included a variety of representatives from government agencies, different community organizations, educational entities and businesses. Additionally, several interviews were conducted with representatives from educational organizations, including a parochial school, Jefferson County Public Schools (JCPS) and the University of Louisville. The areas addressed in the focused discussions and interviews were generally the same ones that were tested in the online Survey.

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<sup>16</sup> The Institutional Network or "I-Net" is provided to Louisville Metro under Section 47 of Ordinance #76, Series 1998 (as amended) (" '98 Ordinance"). It is explained in more detail later in the Report.

Overall, the participants in the Survey and focused discussions provided a well-rounded and comprehensive understanding of the cable-related needs and interests of internal and external organizational stakeholders (government agencies and community, non-profit and business organizations respectively) within the Metro franchise area. Specific findings are covered in the next subsections.



## **Findings**

### **Government Agency and Community Organization Cable-Related Assessment Survey**

The key findings from the Government Agency and Community Organization Cable-Related Assessment Survey are as follows (additional detail can be found in Attachment B-1):

**Type of Organization** -- The type of community, non-profit and business organization and government agency responding to the Survey varied widely and included:

- Public safety organizations and justice organizations such as EMA MetroSafe, Kentucky Court of Justice, the Jefferson County Attorney Child Support Division, and Louisville Metro EMS
- K-12 educational entities such as a host of private and parochial schools (such as St. Agnes School, St. Nicholas Academy, Trinity High School and many others)
- Library organizations such as Louisville Free Public Library
- Healthcare organizations such as University Hospital, Family Health Centers and Park DuValle Community Health Center
- Business organizations such as Greater Louisville, Inc. and Louisville Downtown Development Corporation
- Environmental agencies and organizations such as the Louisville Metro Air Pollution District and Energy Conservation Associates
- A variety of representatives from Louisville government, including Councilpersons
- Spiritual, religious and religious-affiliated organizations such as Catholic Charities of Louisville, a variety of community ministries organizations and Jewish Family and Career Services
- Minority and ethnic-focused agencies and organizations such the Louisville Urban League
- Arts and cultural organizations such as Broadway in Louisville

- Youth and family organizations such as Exploited Children's Help Organization, the Center for Women and Families and YouthBuild Louisville
- Other community organizations such as Family Scholar House, ElderServe, New Directions Housing Corporation, Neighborhood House, Vision Works LLC and others

**Respondent Title** -- A variety of job functions and departments were represented by the respondents, with most having overarching responsibility for their organizations, including Administrators, Executive Directors, Coordinators, Principals, Councilpersons, Owners, Directors, Managers, Officers, CEOs, COOs, Presidents, Vice Presidents and others.

**Size of Organization** -- A variety of different sizes of organizations was represented including entities with only one or a few employees to organizations with as many as 3,500 employees in the local office.

**Satellite or Field Offices** -- Many respondents indicated only one location. Others noted that they had multiple offices, including those outside of the Louisville Metro area. However, their responses indicate that, in each case, the population that they serve for purposes of the Survey are those within the Louisville Metro franchise area.

**Organizational Purpose** -- As one would anticipate from the type of organization, many different organizational missions were represented by Survey responses. Some of these were Metro government services. These respondents, for example, provided an understanding of both their use of the Government Access Channel (MetroTV), as well the Institutional Network (I-Net).

Missions of other organizations were diverse and include a variety of activities including: weatherization and energy education; providing life skills; shelter and family mediation services; interdisciplinary programs for families, older adults and multi-cultural communities; low income housing and social services programs; child abuse prevention education; educational, social and wellness resources for older adults; health services; crisis assistance;

improving education and work-based skills of youth and young adults; prevention, preparation and response to emergencies; services to immigrant clients; financial assistance for low income families; workforce development; research education and advocacy concerning affordable healthcare; transportation for the elderly and disabled; adult addiction treatment services; psychiatric rehabilitation and recovery services; economic development efforts and initiatives; enforcing air pollution regulations; library services; multiple educational entities focusing on a variety of student populations; representing the people of Metro in the legislative process.

**Use of Insight/Time Warner Cable Television Subscriber System Services** -- Sixty-one percent (61%) of the respondents indicated that they utilize Insight/Time Warner cable television services at their organization, with another 6% indicating that they were unsure if anyone within their organization was utilizing the service.

**Insight/Time Warner Cable Television Connections** -- Connections to Insight/Time Warner cable television ranged from 1 to 450 per organization (the higher numbers were reported by the school districts). Top uses of the system include:

- Access to news and information
- Monitoring weather
- Viewing educational programs
- Following broadcasts of public meetings on MetroTV
- Accessing educational programs to enhance instruction
- As part of the classroom curriculum
- Programming for clients to view
- Access to cable TV for patients

Thirty-six percent (36%) of respondents with cable television connections indicated that all of their connections were provided free of charge, with an additional 9% indicating that some of their connections were provided free of charge. Thirty-eight percent (38%) of respondents indicated that none of their connections were provided free of charge, and 17% did not know.

The majority of respondents had Basic cable service, and many indicated that they had Mini Boxes (also known as DTAs) to provide those signals to their televisions and monitors. Some of those had as many as 32 Mini Boxes.

When asked how they might be affected if free connections were no longer available, some, especially Public Safety entities, indicated that there would be a major or significant impact. Others indicated that they probably would no longer have cable in their school; it would increase cost and diminish service to the public; students would lose access; budgets would be affected in a negative way, especially since many have limited funds; it would be a huge financial problem and severely diminish their ability to accomplish their mission.

Respondents were also asked whether they viewed programming in theme blocks of channels. Three percent (3%) indicated that they do Frequently, 21% Sometimes and 76% indicated that they never do.

**Importance of Cable Television** -- Respondents were asked to indicate how important it is for their organization to have access to cable television considering their organization's mission and goals. Thirty-nine percent (39%) of the respondents indicated that it was Very Important, 21% indicated Important, 25% indicated Somewhat Important and 14% indicated Not At All Important. Two percent (2%) of respondents indicated that they Don't Know.

**Rating of Insight/Time Warner Cable Services** -- Respondents were asked to rate a variety of characteristics using a 4 point scale: Poor, Fair, Good and Excellent. Respondents were also able to indicate that they didn't know or that particular characteristic was not applicable to them. The ratings provided were the following:

<b>Cable Service Characteristics</b>	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Don't Know/Not Applicable</b>
Overall quality of service	20%	58%	9%	4%	9%
Picture quality of service	20%	52%	11%	2%	14%
Sound quality of service	20%	56%	7%	4%	13%
Variety of programming available	11%	60%	9%	4%	16%
Cost of cable service	18%	20%	11%	18%	32%
Billing practices	7%	30%	11%	7%	45%
Information provided regarding rate changes	5%	25%	16%	9%	45%
Information regarding programming and service changes	7%	34%	14%	9%	36%
Quality of installation provided by Insight/Time Warner	11%	42%	11%	4%	31%
Service/repair response	11%	45%	9%	7%	27%
Customer service support	9%	44%	13%	7%	27%

A review of the ratings indicates generally good marks for many of the characteristics tested. The lowest overall marks went to “Cost of cable service” (29% Fair and Poor); “Information provided regarding rate changes” (25% Fair and Poor) and “Information regarding programming and service changes” (23% Fair and Poor).

When asked to provide the reasons for why a particular characteristic was rated Fair or Poor, a number of respondents weighed in with comments such as:

- It’s very expensive for service with mixed quality.
- Quality varies with any given day.
- You never get credited when the cable is out.
- On digital - ready TVs, the sound can be choppy, cost keeps increasing with no added features, no info. on rate changes, programming changes happen without notice.
- Until this past year, free service for schools was offered to our school.

**Additional Channels or Categories of Programming --** Respondents were asked to indicate whether there were any channels or categories of programming currently not offered on the cable

service that the organization would like to see added. Categories specified by respondents included:

- KET2 HD
- KET GED Preparation and Workplace Essential Skills training on the video-on-demand platform
- More HD channels without the use of special digital boxes
- Discovery learning channel

**Insight/Time Warner Cable Non-Subscribers --** For those that don't have cable service now, the question was asked whether their organization had ever subscribed to Insight/Time Warner cable service. Fifteen percent (15%) indicated yes, they had, while 58% indicated that they had not ever subscribed to Insight/Time Warner cable service. An additional 27% said that they did not know. For those that indicated that they had been previous subscribers, they were asked why their organization stopped subscribing to Insight/Time Warner cable service. The majority indicated cost with some additional responses concerning service issues (including one that indicated generally unreliable service), the fact that they had become a satellite subscriber and that they now rely on free over-the-air television.

For those who had never subscribed, the top responses included: don't want/don't watch TV; no time to watch TV; cost; the respondent uses the internet instead of watching TV via cable; and that they are satisfied being a satellite subscriber.

**Agencies and Organizations That Desire Cable Television Service in the Future --** Respondents that don't currently have access to cable television but would desire such access in the future were asked how many connections they might establish. Respondents indicated a range of 1-6 cable television connections that they might establish.

**Channels, Service or Categories of Programming That Such Respondents Would be Seeking --** For those that indicated that they would seek cable television in the future, a variety of different types of uses were listed as those they would be seeking from the cable system. Examples include:

- Educational programming
- Local and news channels
- MetroTV
- Nature programming
- Discovery
- PBS
- History programming

**Overall Experience with Public, Educational and Governmental Access Programming --**

Forty-seven percent (47%) of respondents watch Access Channel programming at or on behalf of their organization. Thirty-two percent (32%) do not watch Access Channel programming, while 21% indicated that they didn't know whether others in their organization watched Access Channels.

**Government Access Programming --** Of those who view programming on the Access Channels, 39% indicated that local Government Access MetroTV Channel 25 is Very Valuable to their organization. Another 31% indicated Valuable, while 28% indicated Somewhat Valuable. No one indicated Not At All Valuable, while 3% weren't sure whether government programming was valuable to their organization.

**Public Access Programming --** Viewers ranked Public Access programming more moderately with 9% indicating Very Valuable, 9% Valuable, 43% Somewhat Valuable and 9% Not At All Valuable. Thirty-one percent (31%) weren't sure whether local Public Access programming was valuable to their organization.

**Local Educational Programming --** If more local K-12 educational programming were available on the cable system, many agency and organizational users would find such programming valuable with 22% indicating Very Valuable, 17% indicating Valuable, 22% ranking it as Somewhat Valuable and 31% indicating Not At All Valuable. Eight percent (8%) weren't sure whether more local K-12 educational programming would be valuable to their organization.

Current viewers of Access programming were also asked if local higher educational programming were available on the cable system, how valuable it would be to their organization. Here 11% of current Access television viewers indicated that it would be Very Valuable, 25% Valuable, 33% Somewhat Valuable, 19% Not At All Valuable, and 11% indicated that they didn't know how valuable it would be to their organization.

Those that are not current viewers of Access programming were also asked if more local K-12 educational programming were available on the cable system, how valuable would it be to their organization. This group of respondents indicated 30% Very Valuable, 10% Valuable, 13% Somewhat Valuable and 43% Not At All Valuable. Five percent (5%) indicated that they didn't know how valuable K-12 educational programming would be to their organizations.

This group was also asked if local higher educational programming were available on the cable system, how valuable would it be to their organization. In this case, those who don't currently watch Access programming indicated that local higher educational programming would be Very Valuable (13%), Valuable (15%), Somewhat Valuable (25%) and for 40%, Not At All Valuable. Eight percent (8%) indicated that they didn't know how valuable it would be.

**Additional Issue and Activity Coverage --** Based on their knowledge of the programming on the existing government and public access channels, respondents were asked to indicate whether there were any issues or activities related to them, their organization or local community that they believe should receive more coverage on the local Access Channels. Thirty-six percent (36%) of respondents indicated that there were and noted a variety of activities or issues including:

- Child abuse prevention
- Resources and services provided by local non-profits
- Education on home ownership
- Educational, environmental and community development
- Coverage of fund-raising events
- Programs about endangered species, climate change, animal welfare and the like



- More public awareness related to 911/311 and emergency preparedness
- Housing issues
- Coverage of library events such as authors' appearances, children's story times and other special programming
- In-depth discussions of issues that affect the Metro budget

More activities and issues are listed in Attachment B-1.

**Access to PEG Programming on Demand --** Respondents who were viewers of Access channels were asked whether it would be valuable to their agency or organization to have government and public Access programming provided on demand on the cable system. The majority of respondents indicated that it would be Very Valuable (29%), with an additional 17% indicating Valuable, 23% indicating Somewhat Valuable and 17% indicating Not At All Valuable. Fourteen percent (14%) weren't sure whether on demand access to PEG programming would be valuable to their organization.

Respondents who were not current viewers of Access channels were also asked how valuable it would be to their organization to have local programs that they would like to see on the Access channels available on demand on the cable system. Nearly 1 in 4 respondents said Very Valuable (24%) with an additional 11% indicating Valuable and 11% indicating Somewhat Valuable. Forty percent (40%) of these respondents indicated that on demand would be Not At All Valuable to them. Sixteen percent (16%) weren't sure whether on demand access to PEG programming would be valuable to their organization.

**The Value of PEG Programming to Non-Viewers of the PEG Access Channels --** Those who indicated that they didn't watch PEG programming at their organization or were unsure whether some did were asked what types of local programming they would like to see on the PEG Channels that would be valuable to them. They indicated a variety of responses including:

- STEM (Science, Technology, Engineering, Math) programming
- Helpful hints about the community at large
- Local history about Jefferson County and the State

- An overview of the “whys and hows” of government agencies
- Educational programs

**Use of MetroTV’s Facilities, Equipment, Staff, Channel Playback or Other Resources --**

Twenty-three percent (23%) of respondents to the Survey had used MetroTV’s resources to develop programming for their organization, either for internal use or in order to provide information via the cable television system or online. Respondents indicated a variety of uses of MetroTV resources including:

- Broadcast of luncheons and special events
- Public education forums on fair and affordable housing
- Programs about the zoo, its education and conservation missions
- Segments devoted to the Child Support Division
- Basic outreach concerning EMA/MetroSafe services
- Committee/Council meetings
- Coverage of Council District events and information
- Library programming
- Public service announcements
- Disaster preparedness programming
- Public education stories about using EMS

A full listing of the agency and organizational uses of MetroTV resources can be found in Attachment B-1.

Of those who had utilized MetroTV’s resources, 35% indicated that this use was Very Important to the fulfillment of their organization’s mission or goals. An additional 47% indicated Important, 12% indicated Somewhat Important and 6% indicated Not At All Important. For those that had indicated some level of importance, a number described how MetroTV helped them meet their mission or goals. Reasons included:

- Broadcasting events for those unable to attend
- Providing information so that people can learn their rights

- Promoting public awareness of EMA's initiatives
- Communicating information to constituents
- Connecting the citizens of the Louisville Metro area to information provided by the library
- Providing citizen awareness of real/perceived emergencies and response services
- Providing public education
- Understanding Metro policies, services and goals

A full list of the important reasons can be found in Attachment B-1.

Forty-nine percent (49%) of those who had not used MetroTV's resources would like to in the future. They indicated a variety of envisioned uses, including:

- Updating educational videos
- Providing a curriculum of job skills or life skills
- Promoting public events and featuring different agencies
- Disaster education programming
- Preparing and advertising events, services and other important public information
- Information that affects the neighborhoods where people live
- Educating the community about mental illness and addiction
- Reporting on the accomplishments of young people in the Metro area
- Enhancing instruction in the classroom
- Use in government and economics classes
- Reviewing committee meetings for content

A full list how those that currently don't use MetroTV's resources envision using them can be found in Attachment B-1.

**Use of Public Access Channel 98's Facilities, Equipment, Staff, Channel Playback or Other Resources** -- One percent (1%) of respondents to the Survey had used Public Access Channel 98's resources to develop programming for their organization, either for internal use or in order

to provide information via the cable television system or online to the public. Of these respondents, half of them said that the use of Public Access Channel 98's resources was important to fulfillment of their organization's missions or goals, where half indicated Don't Know.

For those indicating that they did not currently use Public Access Channel 98's resources, 22% indicated that they would like to use Public Access Channel 98's resources, 15% said no and 63% indicated that they weren't sure whether they would need to use Public Access Channel 98's resources or not.

For those that said yes, they envisioned using Public Access Channel 98's resources in a variety of respects, including:

- Child abuse prevention education
- Disaster education
- Developing PSAs and other public information
- Educational opportunities
- Post events happening in Districts

A complete list is available in Attachment B-1.

**Provider of Local Data Communications, Internet Services and Connections --** Respondents were asked who currently provides their broadband and internet services and connections. A number of different providers were indicated with Insight/Time Warner and AT&T being predominant. They were followed by Metro Government, Windstream and many others. A full list of providers noted can be found in Attachment B-1.

**Type of Internet Connection --** Survey respondents were asked what type of internet connection they had, ranging from low speed dial-up services to very high speed fiber to the

premises connections. The most predominant were fiber to the premises connections, including fiber to the premises through Insight/Time Warner, CityNet and AT&T's Metro Ethernet.<sup>17</sup>

The next most popular connection was DSL, followed by cable modem, fiber to the premises (FTTP), T-1, fixed wireless, satellite broadband, mobile wireless (cellular aircards), frame relay and dial-up. Several respondents indicated multiple types of connections.

**Rating of Internet and Data Communications Services** -- Respondents were asked to rate a variety of characteristics of internet and data communications services using a 4 point scale: Very Satisfied, Satisfied, Dissatisfied and Very Dissatisfied. Respondents were also able to indicate that they didn't know or that the characteristic was not applicable to them. The ratings provided were the following:

Aspects	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/Not Applicable
Cost of internet/network service	15%	46%	11%	1%	26%
Speed of on-line connection	21%	61%	11%	3%	4%
Billing practices of your provider	13%	51%	3%	1%	33%
Reliable access to the Internet	24%	68%	5%	0%	4%
Training and technical support	14%	51%	9%	3%	24%
Customer Service Representative's knowledge and courteousness when you call for service or support	15%	50%	4%	5%	26%
Installation technician's ability and courteousness	18%	51%	1%	1%	29%

A review of the ratings shows high levels of satisfaction with many aspects, including 92% Very Satisfied or Satisfied with reliable access to the internet, with 4% indicating that they didn't know, and 82% indicating Very Satisfied or Satisfied with speed of the online connection, with

<sup>17</sup> Fiber to the premises connections are provided in a variety of ways to a variety of organizations. Both Insight/Time Warner and AT&T (through its Metro Ethernet service) provide fiber for commercial/business connections. Insight/Time Warner also provides I-Net fiber for Louisville Metro Government's uses. Then, the City provides "CityNet" services to government agencies which use a combination of I-Net fiber, Metro Government owned fiber and leased services.

14% Dissatisfied or Very Dissatisfied (this was the highest dissatisfaction rate) and 4% Don't Know.

**Reasons for Dissatisfaction** -- For any who gave a "Dissatisfied" or "Very Dissatisfied" rating, respondents were asked to explain the reason why. Some of the top responses included:

- Internet is pretty expensive and slow.
- Speed of online connection seems to vary during the day.
- Have a better bundled service cost for non-profit organizations.
- Sometimes access is not available.
- Insight has been pretty much hands off in the way of customer service.
- Insight continually blocks their newsletter as spam. Not acceptable.
- Prices for fiber connection are very expensive. T-1 speed does not handle current Internet needs.

A complete list of reasons for dissatisfaction can be found in Attachment B-1.

**Use of the Fiber-Based Institutional Network<sup>18</sup>** -- Respondents were asked if their organization would be interested in connecting to the Institutional Network (I-Net) which is used currently by Metro government agencies to share electronic data and allow internet usage. An I-Net can serve a variety of government, educational and public institutions, so the question was asked in part to determine where additional I-Net locations would be needed in the future. Twenty-nine percent (29%) of respondents indicated that they would like to use the I-Net or currently use the I-Net, 6% indicated no, and 65% indicated that they don't know.

For those who said yes, when asked how their organization would utilize the I-Net, responses included:

- Data and voice communication
- Need faster, bigger, cheaper connections with better service and scalability
- Could be a tremendous public service in a time of crisis

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<sup>18</sup> See Footnote 16

- Facilitate critical data exchange to extend Metro's footprint or communicate with non-Metro government agencies where appropriate
- Training and education
- Internet access for students and staff
- Providing excellent opportunities for communicating and collaborating
- Situational awareness and incident management

**New or Emerging Communications Technologies** -- Respondents were asked to consider the range of issues that they had commented upon and then indicate the new or emerging communications technologies that they believe will be critical to their community in the future. Respondents indicated a wide range of technologies, including:

- Technologies that allow for consumers to tailor the cable programming to their taste by offering choices
- Computer and internet access to all to close the digital divide
- GED classes, ACT classes, homework classes, etc.
- Engaging science and technology programming
- Access to public, governmental and educational resources in an on-demand format
- All forms of telecommunications available for access by all citizens for full participation in education, employment and community activities
- Enhancing wireless capabilities
- Access information to advanced training for job seekers
- Nutritional and cooking classes
- Use of emerging media like the social channels
- Much faster internet services
- Community resource handbooks online
- Full access to cable programming on tablet devices
- Interaction of government with educational institutions
- Live broadcasts of trials

A complete list is provided in Attachment B-1.

**Other Comments** -- Respondents were given an opportunity at the end of the Survey to provide final comments about PEG Access services, Insight/Time Warner cable services and broadband/internet/I-Net services. Thirteen percent (13%) of respondents provided final comments, including:

- Allowing subscribers to own their own cable boxes to avoid continual rental fees.
- Provision of PSAs by Insight to local non-profits.
- Critical for local broadcasters to be able to opt out of severe weather programming interruptions by Insight/Time Warner.
- Integration of cable TV programming through the internet and on devices that access the internet.
- Insight needs cable competition.
- Expanding cable services to the Catholic and private educational systems is critical.
- Do not like Insight/Time Warner's service at all.
- I've been an Insight customer for a long time and have always been happy with the service.

As for the other comments, a complete list of comments is available in Attachment B-1.



## Focused Discussions

### **Focused Discussion with Internal Stakeholders**

Internal stakeholders focused on similar areas to external stakeholders, including:

- The use of cable television service at their office or facility;
- The use and viewership of PEG Access programming, especially the use and viewership of MetroTV and the evolution they would like to see in both its delivery on the cable system as well as support from MetroTV's production resources; and
- The use of the fiber-based Institutional Network (I-Net).

Attendees in this focus group included representatives from:

- Downtown Development
- Louisville Free Public Library (LFPL)
- Air Pollution Control Division (APCD)
- Human Resources
- Parks
- County Attorney's Office
- Metro Technology Services
- LICEMA-MS
- Metro Council
- Greater Louisville, Inc.

### **Key Findings**

Key findings from this focused discussion include:

**Internal stakeholders use MetroTV for a variety of critical purposes --** Participants in the focused discussion indicated:

- It allows periodic meetings of their Boards and Commissions to be covered for public consumption.
- MetroTV provides for in-depth coverage of critical subject matter such as disaster preparedness.
- Coverage of press conferences enables Louisville Metro residents to learn about the good things that Metro government is doing as well as timely information about critical occurrences.
- It allows replay of longer form programming for people that may have missed it the first time around,
- It also allows for the ability to provide clips of information for fast dissemination to the public.
- Use of MetroTV keeps government open and transparent.
- Because meetings can be recorded and archived, they can be monitored by constituents at any time and allow constituents to feed back information on critical issues.
- Other local media can pull from the archived meetings and provide further information in their information dissemination efforts.
- MetroTV covers a variety of events that provide education and information to the public including author and speaker programs.

**MetroTV needs more advanced equipment and additional space --** Participants indicated that, while MetroTV was very resourceful in the way that they responded to agency requests for coverage, the equipment was significantly outdated related to the current state-of-the-art and that there was limited space, especially for studio productions and that both of these facets needed to be updated.

**The ability to provide emergency services over MetroTV and the cable system is critical --** It's very important for the City to be able to provide real time emergency service information in critical situations over MetroTV and also be activating the Emergency Alert System (EAS). However, participants indicated that it would be important for Insight/Time Warner not to

override the local broadcasters, since they would not only be providing the most up-to-date information, but also would be interfacing real time with Louisville Metro emergency management officials.

**MetroTV should migrate to high definition over time --** Participants noted that viewers are getting accustomed to HD and the 16x9 aspect ratio so that producing programs in HD might be useful as both MetroTV and the cable system evolve.

**There should be more live origination programming on MetroTV --** Participants indicated that it would be important to provide more events live and that this would involve providing fiber optic or other video feeds back to MetroTV from a number of facilities including:

- The Memorial Auditorium
- The Convention Center
- The MetroSafe Headquarters
- 14 West Liberty

**MetroTV and Insight/Time Warner's subscriber/viewers would benefit from on-demand distribution of Government Access programming --** Participants indicated that it would be important to have a number of MetroTV archived programs available on demand including such programs as the authors' series, public safety information and Council meetings/Committee meetings. Along with this, the information for these programs, as well as the information from the real time programs on Channel 25, needs to be available in detail on the cable menu.

**The Institutional Network is extremely valuable to internal stakeholders --** Participants noted both the value of the network to existing I-Net users as well as potential users in the future. For example, those that now rely on the I-Net would either have to run their own fiber or move back to leased services. Additionally, there are some agencies where some locations are still on dial-up because they are remote work sites, or they have significant costs that could be reduced if they were connected to the I-Net. LFPL, for example, indicated that it was able to use both Insight as an ISP and AT&T connections to the branches, because it has a Metro Ethernet

connection from the main library to its ISP as well as the use of E-Rate to offset costs for the AT&T circuits. It would need to migrate over to the I-Net if this configuration were to change in the future, and its cost potentially could increase. Other entities mentioned as potential new I-Net users included suburban fire departments.

**Advancements are needed in both the I-Net infrastructure as well as broadband communications overall --** Participants indicated that it would be very important for the Institutional Network to develop interconnections with wireless systems, as well as an interconnection across the Ohio River to partner agencies in Indiana. Additionally, concerning broadband overall, it was discussed that continued evolution of broadband services by Insight/Time Warner would be important for those that work from home (telecommuting) as well as small businesses that need high bandwidth at cost-competitive points.

**The use of cable television by internal stakeholders is very important --** Participants indicated that the use of cable television allowed them to monitor MetroTV for either internal use or providing information to the public. It also allows them to monitor news and weather information. Participants indicated that internal wiring was an issue in some buildings that weren't set up properly for cable distribution.

**Line extension is an issue for both the cable television subscriber service and the I-Net --** Participants noted that there needed to be a way to get both networks out to more rural, remote areas where remote sites of some agencies are located, especially both Fire Department and Department of Public Works installations.

**Participants noted some problems with the cable television service they receive --** Participants in the internal stakeholders group noted that they still had picture erosion during storms, multi-room DVR issues, and degradation in cable modem service due to too many subscribers off of one node.

**Internal stakeholders indicated that it was very important for Insight/Time Warner to continue to have a large local presence --** Participants indicated, for example, that it was

important that a local call center be available in the Louisville Metro area, that there continues to be a local office for paying bills and resolving complaints, and that overall Insight/Time Warner should continue to promote its local presence and even increase its involvement in the community.

### **Focused Discussion with External Stakeholders**

In October 2012, a focused discussion was held with community organizations and other external stakeholders to discuss a variety of cable-related issues as they apply to the needs and interests of these external stakeholders and the constituencies that they represent and serve. The focused discussion included representatives from:

- A variety of broadcasters, including representatives from WHAS, WDRB and WAVE
- The Kentucky State Fair Board
- TriMarc

During the focus group, participants engaged in discussions concerning three main cable communications areas:

- The use of cable television services by these external stakeholders and the constituencies they represent;
- The use and viewership of Insight/Time Warner Public Access Channel 98 and MetroTV Channel 25, as well as the potential use and viewership of an educational access channel; and
- Applications related to broadband services and fiber optic connections.

### **Key Findings**

From the group discussion, the key findings are as follows:

**It is critical that EAS activation does not interrupt the provision of emergency information by broadcasters --** A significant portion of the discussion was devoted to the problem

experienced by local broadcasters when Insight/Time Warner activates the EAS system, and it interrupts the provision of emergency information by the local broadcast channels that is of a critical timely nature, while the information provided through the interruption message is outdated. As noted in the Residential Survey Section of the Report, subscribers indicated that they primarily get emergency information from the local broadcast channels. The broadcasters indicated that they have spent significant time and effort working with Insight/Time Warner and the Federal Communications Commission (FCC) on this problem, with no successful resolution. While Time Warner provides this type of “interruption bypass” for broadcasters in other markets, they have indicated to date that they would not do so here because of the significant capital investment. However, information from the broadcasters indicates that not doing so creates a significant hazardous and unsafe situation for the local population, by not being able to get the most timely critical emergency information because it is overridden by the EAS activation. Participants indicated that this should be a top priority issue during franchise renewal discussions.

**MetroTV is providing an essential governmental service to Louisville Metro residents --**

Participants agreed that it was important for MetroTV to continue providing coverage of the Metro Council, as well as event coverage. It was discussed that MetroTV fostered transparency in government and that this is “always a good thing.” Also, the community sees government at work in an unfiltered manner, rather than just through sound bites.

**The Louisville Metro area would significantly benefit by having additional fiber and network interconnections between external and internal stakeholders --**

Participants indicated that an expansion of fiber optic infrastructure by Insight/Time Warner and others with appropriate interconnects would be significantly beneficial to the entire metropolitan area. For example, TriMarc indicated that it is already on the fiber network that is part of Louisville Metro Government’s CityNet wide area network and desires to bring on more locations. Through these connections, it’s able to place some of its camera information on MetroTV for dissemination of visual traffic information to Insight/Time Warner subscribers and others through online distribution. Broadcasters talked about the importance of their fiber connections to the headend providing the best possible video and audio signals to subscribers. They discussed how

important it would be in the future to tap in directly to fiber connections from the Emergency Operations Center to real time capture emergency information.

**External stakeholders see advancements in the provision of cable communications as beneficial to them and their constituents --** Focused discussion participants indicated that new and emerging services such as video-on-demand for businesses, providing cable services over a mobile Wi-Fi platform, and covering more events live (such as events put on at the Kentucky State Fair) would be beneficial to both them and the clients and constituents they serve.

Broadcasters also noted that they believe that viewers would benefit and it would help ease of access by viewers to essential local programming to put all of the broadcast signals together on the channel line-up. For example, right now the primary channels of the broadcasters are not clustered together with their multicast channels, so that subscribers have to search for the multiple services provided by a single broadcast entity. Additionally, broadcasters are not positioned all together on the line-up, so viewers have to “hop-scootch” around to find all the local broadcast channels. Clustering them all together would be better for both the programmers and the viewer.

**External stakeholders are interested in expanding partnerships with Insight/Time Warner --** Broadcasters talked about the importance of partnering with Insight/Time Warner on coverage of activities that are essential to the local Metro population. This could include, for example, partnering to provide information that is on Public Access Channel 98, also on the community portion of broadcasters’ websites, as well as partnering with Insight/Time Warner’s local origination operation related to coverage of significant local issues.

## Interviews with Educational Representatives

In both October and November of 2012, interviews were held with educational representatives to discuss similar issues to those discussed with other internal and external stakeholders as described above. Specifically, interviews were held with:

- A representative of Mercy High School (also on the Metro Council)
- The Community Relations and Government Affairs representative for the Jefferson County Public Schools
- IT, Facilities and Procurement Representatives of the University of Louisville (U of L)

### **Key Findings**

Key findings from these discussions are presented below.

**It is important that private and parochial schools continue to have access to cable television and broadband services at no or low cost --** While much of the video information that Mercy High School and other private parochial schools have is shifting toward online access and distribution, access to services over the cable platform is still important for students, faculty and staff. For example, the cable platform is used to access KET programming that is used in the schools, as well as other educational news and information services.

**Continuation of the provision of cable services to public schools is valuable --** JCPS continues to utilize the cable services provided to its schools on a school-by-school basis. Essentially, both the principals and teachers decide how the programming that's provided via the cable service fits into its curriculum. This typically is on a subject-by-subject basis. For example, social studies classes use cable television programming all the time, whereas classes requiring hands-on work (such as chemistry classes) may use it in a very limited fashion.

**It will be important to look at the density clause to ensure cable service access to all within the Louisville Metro area --** It was noted that some Jefferson County Public Schools appeared



to have access to cable television, while homes around it did not. For any student, this will be a problem if they need to access certain services after they have left school.

**It's important to continue to have local community programming in the most basic tier --**

For both schools and students at home, it's important to have local community programming, such as the Government Access Channel, in the most basic tier so it continues to be part of the most affordable service and can be accessed easily wherever a student may choose to view such services.

**Important Jefferson County Public Schools programming should continue on the cable TV platform --**

JCPS has a separate contract with Insight/Time Warner's LO operation to produce and cablecast School Board meetings. These meetings appear on Channel 98. JCPS also provides a show called "Our Kids" which is cablecast on both Channel 98 and MetroTV. It will be important to continue to have this programming available to subscribers.

**It's possible that JCPS may have the ability to produce more programming in the longer term --**

While JCPS doesn't have the resources to produce more programming than its current Board meetings and "Our Kids" programming, it envisions that, as the economy improves and school budgets may improve, in the longer term (beyond 3-5 years), it certainly sees value in being able to provide more educational programming. This could take the form of providing programs that have student involvement from schools where communications arts and sciences are aligned with the curriculum, or training types of programming for faculty, staff and student use, as well as for the general public. Pursuit of programming expansion is something that will be re-evaluated as JCPS's Strategic Plan is updated over time.

**Use of an educational access channel could be viable as a shared resource --**

U of L interviewees indicated that they could envision that, if an educational access channel were to continue to be available and educators got together, there would be a significant amount of programming available, both produced in-house by the various institutions, as well as provided from outside and currently being used by the different educational institutions, that would be

valuable to the cable subscribing viewership at large. This should be further explored by U of L and the various educational institutions.

**The I-Net is a valuable resource for interconnections to Metro government --** U of L indicated that, while it has the access it needs to the KYRUN for its internal purposes and other educational purposes, it has several connections from this network back into the CityNet network of Louisville Metro government which provides for further distribution through Institutional Network links. This “network of networks” is very important to continue to maintain.

**U of L needs a number of institutional cable service connections on campus, as well as advancement of its Insight/Time Warner network infrastructure --** U of L indicated that it would be very important to provide at least an expanded basic level of service to various campus buildings for educational purposes for both students and faculty.

Beyond this, the U of L is continuing to work with Insight/Time Warner on developing a contract for services for students in dormitories. A critical issue for them is that the current Insight/Time Warner infrastructure is very old, unreliable and needs to be rebuilt. It will be important to have it upgraded to include significantly greater amounts of fiber optics, if not be an FTTP network.

**It will be important for Insight/Time Warner to continue to upgrade and advance its technology --** It’s notable that the use and integration of technology, not only into the classroom but into all aspects of students’ lives, becomes more and more critical to providing necessary educational services. This is why it is important for Insight/Time Warner, as a provider of video and other technology services such as access to the internet, work to be always at the technology forefront.

**It’s also important for these services to be affordable --** Inexpensive access to the internet will continue to be critical, including the ability to get to the internet for free, at least at community and school locations.

**JCPS would be interested in pursuing use of advanced forms of cable technology --** For example, the use of interactive television could be extremely beneficial for providing curriculum to both place-bound students and non-traditional students. There should be the ability to explore this further in any renewed franchise.

## **Conclusions and Recommendations**

After reviewing the findings from the Survey, focus group and interview results, the following major conclusions and recommendations are evident:

- 1. MetroTV is highly viewed and valued by government agencies, community organizations and other internal and external stakeholders --** Forty-seven percent (47%) of respondents to the Survey watch Access Channel programming at or on behalf of their organization. Of these, 7 in 10 indicated that Government Access, MetroTV Channel 25, is Valuable or Very Valuable to their organization. This was echoed by those that participated in the focused discussions and interviews.

Public Access programming is found to be Very Valuable or Valuable by nearly 2 in 10 of the Survey respondents. Participants in the focused discussions also talked about the importance of having truly local programming on the cable system.

- 2. MetroTV's facilities, equipment, staff, channel playback and other resources are well utilized by government agencies and public entities --** Twenty-three percent (23%) of respondents to the Survey had used MetroTV's resources to develop programming for their organization. The majority of the internal stakeholders in the focused discussion had also used MetroTV. These entities had used these resources to produce a wide diversity of programming, including programming produced remotely, live origination of public meetings, and programming produced at the MetroTV facilities. Eighty-two percent (82%) of Survey respondents who had used the facilities indicated that such use was either Very Important or Important to the fulfillment of their organization's missions or goals.

- 3. MetroTV will need to continue to enhance and advance its facilities, equipment, staff, channel playback and other resources in order to meet the needs assessed --** A number of the respondents to the Survey, as well as participants in the focused discussions, especially the internal stakeholder discussion, indicated additional

capabilities that will be needed and will be critical to the respondent's organization in the future. Such capabilities include:

- a. More live, remote origination capabilities
- b. Bigger studio facilities
- c. High definition production and program distribution capabilities
- d. Additional distribution mechanisms, as mentioned above, such as on demand

**4. Local educational programming is also a valuable part of the cable service --**

JCPS, U of L and representatives from private and parochial schools talked about the importance of having an outlet for local educational programming. They also discussed the potential for having enough programming down the road that would require a separate educational channel in order to fulfill the needs at that time.

Both current viewers of Access Channels, as well as those that don't currently watch Access Channels, also would find it Valuable if more local K-12 and higher education programming were available on the cable system. Specifically, regarding viewers, nearly 4 in 10 would find it Valuable a Very Valuable to have more K-12 educational programming on the system, with the same number of non-current viewers of Access programming finding it Very Valuable or Valuable.

Regarding higher educational programming, over 1/3 of current Access television viewers would find it Valuable to have more local higher education programming on the system, while over 1/4 of non-current viewers of Access Channels would find it Very Valuable or Valuable.

**5. PEG Access programming should be provided with advanced features --**

Nearly half of those that are current viewers of PEG Access programming indicated that it would be Very Valuable or Valuable to have Access programming on demand. Over 1/3 of non-current viewers of Access Channels indicated this same level of value. This was also echoed by focused discussion participants, who further indicated that it would be important to have detailed descriptions of such programming on the

interactive menu. Focused discussion participants and Survey respondents also talked about the importance of moving the Access Channels into the HD sphere.

- 6. The fiber-based Institutional Network is well valued and well utilized --** For respondents that currently utilize or would like to utilize the fiber-based Institutional Network, their comments talked about how critical and indispensable the fiber connections were, and the communications problems and related cost issues that would come into play if it was not available. They also indicated that expansion of the network was needed, including two more remote locations, as well as potentially to organizations that currently are using less cost-effective, lower capacity options.
- 7. Cable service is utilized and well valued by a majority of internal and external stakeholders --** Over 6 in 10 respondents to the Survey and a majority of those engaging in focused discussions and interviews access cable television and rate the service with generally good marks overall. Six in 10 also believe that it is Very Important or Important in helping them to meet their organization's mission and goals. Accordingly, for those that are provided the service as part of franchise obligations, it will be important to continue this provision of service, including provision to additional facilities, such as facilities currently not served by cable service, as needed in order to continue to meet the needs assessed.
- 8. A high priority of broadcasters and emergency managers is to ensure that up-to-date, time sensitive emergency information is not overridden by outdated information provided by the Emergency Alert System --** In focused discussions, all of the broadcasters and government emergency management representatives indicated that it was critically important that Insight/Time Warner's EAS system be updated and modified, such that it does not override the local broadcasters during an EAS alert. This sentiment was also echoed in comments provided during the Town Hall Meetings, as well as by subscribers in the Residential Survey.

- 9. External stakeholders envision greater use of Public Access Channel 98 in the future** - Regarding Public Access, only 1% of respondents to the Survey had used Public Access Channel 98's resources. However, twenty-two percent (22%) that did not currently use those resources indicated that they would like to use the resources in the future for a variety of different types of content development and dissemination.
- 10. Access to high-speed internet and data communications is critical to internal and external stakeholders** -- Nearly all responding representatives indicated some type of broadband connection, ranging from frame relay through fiber to the premises. Regarding fiber to the premises, many have AT&T Metro Ethernet connections as well as CityNet fiber connections, some of which are part of the fiber-based Institutional Network as discussed further below. Respondents expressed a general satisfaction with their broadband, internet and data communications services. However, there was some dissatisfaction with the speed of the online connection and related issues. Also, participants in the focused discussions especially talked about the importance of continuing to advance broadband for all those living within the Louisville Metro franchise area.

**SECTION C**

**REVIEW OF PUBLIC, EDUCATIONAL AND  
GOVERNMENTAL ACCESS NEEDS AND INTERESTS  
IN THE LOUISVILLE METRO FRANCHISE AREA**



## **PUBLIC, EDUCATIONAL AND GOVERNMENTAL ACCESS NEEDS ASSESSMENT**

### **Public, Educational and Governmental (PEG) Access Providers, Producers and Users**

#### **Introduction**

CBG and its Team Partners Dr. Constance Book, Carson Hamlin and RDD Field Services also conducted a cable-related Public, Educational and Governmental (PEG) Access Needs and Interests Ascertainment. One of the key Communities of Interest related to this part of the Ascertainment is PEG Access Providers, Producers and Users.

In order to assess the needs and interests of this Community of Interest and overall PEG Access-related needs and interests, CBG employed several proven methodologies. These included:

- PEG Access questions that were parts of both the residential telephone and community organization/government agency online surveys.
- PEG Access questions that were included in focused discussions and interviews with constituent communities such as internal stakeholders (government agencies) and external stakeholders (community organizations, educational entities, broadcasters, etc.).
- PEG Access questions that were part of the discussion topics for the Town Hall Meetings.
- On-site facilities and equipment tours, analysis and reviews, including interviews with staff from MetroTV and Insight/Time Warner Public Access Channel 98.
- Review of pertinent written documents.
- A focused discussion with Public Access Producers and Program Providers.
- An online survey of Public Access Producers, Program Providers and Users.
- An online survey of Government Access Producers, Providers and Users.
- A written survey provided for response by Insight/Time Warner Public Access staff

The findings from a number of these research methods are provided in other sections of this Report. The findings from the online survey (from Public and Government Access Producers, Program Providers and Users), Public Access focused discussion, Insight/Time Warner Public Access staff written survey and on-site facilities and equipment reviews and staff interviews, are provided in this section of the Report.

The specific subject areas covered by the surveys and the Public Access Producers/Program Providers focused discussion are described in an ensuing section entitled “Study Methodology”. The detailed findings from the surveys, focused discussion and on-site reviews and interviews are then described in the subsection entitled “Findings”. Then, some key take-aways related to the franchise renewal process are in the Overall PEG Access-related “Conclusions and Recommendations” section, found at the end of the PEG Access Needs Assessment.

### **PEG Access Overview**

There are currently two Access Channels available to viewers within the Louisville Metro franchise area. These Channels are:

- Channel 25 – MetroTV (Government Access)
- Channel 98 – Insight/Time Warner Public Access

There is also another PEG Access channel reserved for Educational Access (or a second Government Access channel) which has not been activated. Each of the active channels is profiled in more detail below.

### **Government Access – MetroTV**

MetroTV is a nationally-recognized, award-winning government access channel serving Louisville Metro. MetroTV’s mission is to be a top source of information concerning Louisville Metro Government and community life in Louisville Metro by producing programming that makes government more accessible and understandable to residents and builds a stronger sense of community. MetroTV accomplishes this mission through live and replayed coverage of

meetings of the Metro Council, coverage of press conferences of the Mayor's Office, coverage of Metro Government departments and services and coverage of community events.

MetroTV provides special services, such as a calendar of events provided by Metro Council members, and programs developed in partnership with such Metro Government agencies as Public Health & Wellness, Community Services and Revitalization, Louisville Metro Police, Criminal Justice Commission, Louisville Free Public Library and Parks and Recreation. MetroTV provides coverage of community events hosted by local organizations such as the Fund for the Arts and Louisville Public Media. The channel also provides coverage of traffic conditions through TriMarc traffic cameras, and provides national programs of local interest to Louisville Metro citizens.

MetroTV produces close to 1,000 original programs annually, with over 400 original programming hours.

### **Public Access Channel 98**

Insight/Time Warner operates Public Access Channel 98 and its associated Public Access facility on Linn Station Road, serving the subscriber base within the Louisville Metropolitan Area. It enables a diversity of community access productions, including a variety of religious programs, and programs focused on youth, comedy, music, news and information, outdoors, and other matters of community interest. Many of the programs and program producers are long-running and have long been affiliated with the use of Public Access in Louisville, some for 15 years or more.

Programming is both produced on location at the studio, as well as brought in from the outside. In each case, the programming is encoded into the playback system for initial and repeat airings.

Public Access Channel 98 also airs two programs from Jefferson County Public Schools, including five hours of School Board programming a month as well as the JCPS-produced show, "Our Kids."

Overall, Insight/Time Warner indicates that 122 shows a week for a total of 244 hours of Public Access video programming a month is shown on Public Access Channel 98.

## **Study Methodology**

### **Online Survey**

The survey was hosted online for the Government Access Provider, including staff and management of MetroTV, and Government and Public Access Producers, Program Providers and other facility users (as discussed below, a separate written survey was sent to Insight/Time Warner Public Access staff based on the company's request). Also, some Public Access Producers completed the survey in written form. These were then coded into the on-line database for compilation and analysis. There were 23 respondents to the Government Access Survey and 21 respondents to the Public Access Survey (representing over 20% of the current user population). These included independent producers, non-profit representatives, government agency personnel, MetroTV employees and educational representatives.

The topics addressed in the online surveys included:

- Years of affiliation with Access programming development.
- Satisfaction with current Government and Public Access operations.
- Interest and involvement in various types of Access programming.
- Media training and education.
- Production facilitation and assistance.
- Level of use of various Government and Public Access facilities.
- Ratings of various Government and Public Access facilities.
- Ratings of the capabilities and other characteristics of various Government and Public Access facilities and operations.
- Problems with existing facilities and equipment.
- Descriptions of additional capabilities needed to meet the survey respondents' needs.
- Demographic questions.

## **Focused Discussion**

In October 2012, a focused discussion was held with a variety of existing Public Access Channel 98 Program Providers and Producers who utilize the Insight/Time Warner Public Access facility for either encoding programming that is produced outside of the facility or producing programming within the facility. The topics addressed in the focused discussion included:

- An overview of the Needs Ascertainment process.
- Use and viewership of Public Access Channel 98.
- Attributes of successful productions.
- Attributes of less than successful productions.
- Attitudes, interests, needs and opinions concerning key components of Public Access, including a variety of facilities and equipment.
- Digital migration and HD digital transition.
- Promotional capabilities.
- Use of video-on-demand.
- Cross platform distribution.
- Potential use of interactive television.
- Visioning related to Public Access within both the short and the long term.

## **Written Survey of Insight/Time Warner Public Access Staff**

Additionally, in late 2012, a focused discussion via conference call was requested by CBG with Insight/Time Warner Public Access Channel 98 staff, designed to discuss many of the subject areas covered by the Public Access Program Providers, Producers and Users Survey and Focused Discussion, in order to gain information from the staffs' perspective. Insight/Time Warner indicated that instead of the discussion with staff via a conference call, they wanted to respond to questions in writing. Accordingly, a written questionnaire was developed in early 2013. Time Warner Cable (not individual Public Access Channel 98 staff members) responded to that survey in February, 2013.

The findings from that survey are discussed later in the Findings section.

Overall, the combination of the information received through on-site reviews, written documentation, discussions with staff and from participants in the focused discussions and surveys provides a well rounded and comprehensive understanding of the cable-related needs and interests of PEG Access Providers, Producers and Users in the Louisville Metro franchise area. Specific findings are covered in the ensuing sections.

## **Findings**

As described above, multiple research processes were utilized in order to give a comprehensive picture of the cable-related needs and interests of Louisville Metro franchise area PEG Providers, Producers and Users. The results from the surveys and focused discussion are detailed below. The findings from other PEG-related research processes are detailed in other sections of this Report.

### **Findings from the Louisville Metro Government Access (MetroTV) Program Providers, Producers and Users Online Cable Television Assessment Survey**

A cable-related needs and interest survey was completed by a diverse group of Government Access Program Providers, Producers and Users who develop programming for and use MetroTV. Demographically, respondents who reported their gender were 53% male and 47% female. From an age perspective, there was good distribution. Specifically, 6% were age 18-25; 18% for age group 26-35 and 35% for age 36-45; 2% were age 46-55 and 12% were 56+. Two races and ethnicities were represented, including Caucasian (85%) and African/American (12%). Education levels tended towards the more educated, with 94% of those responding indicating college degrees or postgraduate work. All 100% were employed.

The key findings from the survey are as follows:

- **Years Affiliated with Access Programming** – Survey respondents showed a wide range of experience with the Government Access facilities and programming development in the Louisville Metro franchise area. Their affiliations spanned from one to 20 years. The average was 7.4 years.
- **Nature of Affiliation** – Consistent with the focus of the survey, the largest affiliation was government representatives at 58% of respondents. An additional 25% were MetroTV employees, while 13% were independent producers and 4% were non-profit representatives.

- **Overall Satisfaction with Current PEG Access Operations** – Survey respondents indicated that they were primarily Very Satisfied (39%). An additional 33% were Satisfied, while 28% were Somewhat Satisfied.
- **Interest and Involvement in Various Types of Programming** – Survey respondents expressed a wide variety of types of programming that they were interested and involved in. The number one category was Public Outreach at 85% of respondents, followed by Community Events (60%), Public Meeting and Civic Engagement (55%), Community News and Public Affairs (40%) and Training and Education (25%). The remaining categories range from 20% (Public Empowerment and Community Engagement) to 0% (Sports Coverage and Religious/Faith Based). The complete listing can be found in Attachment C-2.
- **Television Production and Media Training and Education Received** – Seventeen percent (17%) of respondents indicated that they had received some type of training and education at MetroTV. This included training on all aspects of production, Final Cut Pro editing and post-production training from Metro Government and training from other employees.
- **Training Needs and Expectations** – All survey respondents that indicated whether the training and education they received or provided met their needs and expectations, indicated “Yes.”

Some of the reasons given for this response included:

- I was able to become a full-time employee after serving as an unpaid intern and freelance videographer.
- Helped introduce me to the editing system we use.
- I received input into other processes.

A few respondents indicated that other types of media education and training are needed. They were asked to describe what types and indicated training on production basics that would help government representatives be more efficient in working with MetroTV staff. One respondent also talked about institutionalizing content generation to more closely partner with MetroTV.



- **Facilitation Assistance** – Survey respondents to this question indicated whether the assistance that they received at MetroTV during production was helpful. Fifty-three percent (53%) indicated that assistance received at MetroTV was Very Helpful, while another 6% each of respondents indicated that it was either Helpful or Somewhat Helpful. Thirty-five percent (35%) of respondents indicated that the question was not applicable to them.

A follow-up question was asked as to how the training and/or assistance that was received had been helpful or not helpful. Respondents provided a variety of different reasons, including:

- Helpful in staging the room in a way that allowed for people to receive and comment on the project.
  - Provided personnel to produce material as well as suggestions to improve content.
  - Collaboration on the airing of Council Committee meetings is extremely good.
  - Employees are extremely knowledgeable and professional.
  - Very prompt and willing to work around our schedule.
  - Willing staff but disappointed that MetroTV couldn't do the candidate debates.
  - And a host of other ways described in Attachment C-2.
- **Use of the Facility** – The highest use of MetroTV's facility was 33% utilizing live programs over the cable system weekly. This was followed by 31% weekly use of Metro Council Chambers production equipment. The highest level of use of field equipment at MetroTV was 35% occasionally, with an additional 12% utilizing equipment monthly and 12% utilizing it weekly. Occasionally was also the highest level of use for providing recorded programs over the cable system at 38%, followed by 19% monthly and 25% weekly. The TV studio is used mostly Occasionally (25%) with 6% Monthly use and 13% Weekly. Editing equipment is used primarily weekly at 19%.

MetroTV Facilities and Equipment	Weekly	Monthly	Occasionally	Never	N/A
TV Studio	13%	6%	25%	31%	25%
Field Equipment (Portable equipment and lighting packages)	12%	12%	35%	29%	12%
Metro Council Chambers Production Equipment	31%	0%	8%	31%	31%
Editing Equipment	19%	6%	13%	38%	25%

<b>MetroTV Facilities and Equipment</b>	<b>Weekly</b>	<b>Monthly</b>	<b>Occasionally</b>	<b>Never</b>	<b>N/A</b>
Live Program over Cable System	33%	0%	13%	33%	20%
Recorded Program Playback over Cable System	25%	19%	38%	0%	19%

- **Availability of a Studio Control Room** – Thirty-one percent (31%) of respondents indicated it would be beneficial if a studio control room was available at MetroTV. They listed several reasons why it would be beneficial, including:
  - To tape multi-camera interviews.
  - Provides video switching.
  - Studio preview/program monitors.
  - Recording devices and back-ups.
- **Availability of Multi-Camera Remote Production Equipment** – Fifty percent (50%) of survey respondents indicated that it would be beneficial if multi-camera remote production equipment was available to them through MetroTV. They listed a variety of types of multi-camera remote production equipment they would need, including:
  - Mobile production studio.
  - Equipment necessary to film audio and video in outdoor settings.
  - Portable switchers.
  - Cameras.
  - Monitors.
  - Speakers.
  - Record device.
  - Audio mixer.
  - Wireless intercom systems.
  - Wireless mics.
- They also indicated a variety of uses of such equipment, including:
  - Onsite at community programs, events and functions.
  - Covering press conferences live.
  - Community events, concerts, anything that could benefit from several cameras.

A number of other utilizations can be found in Attachment C-2.

- Ratings of the MetroTV Facility** – Respondents were critical of certain portions of the MetroTV facility, with 39% rating the TV studio as Fair or Poor. Twelve percent (12%) rated the field equipment as Excellent, with an additional 29% rating it as Good and 24% as Fair. Additionally, 6% each the Metro Council Chamber Production Equipment as Fair or Poor, with 11% rating this feature as Good and 17% as Excellent.

The highest Excellent rating (33%) was garnered by recorded program over the cable system, with an additional 28% indicating Good. Live program over the cable system received equal ratings of 17% for Excellent, Good and Fair, respectively.

MetroTV Facility	Excellent	Good	Fair	Poor	No Opinion/D on't Know	N/A
TV Studio	6%	0%	22%	17%	44%	11%
Field Equipment	12%	29%	24%	0%	29%	6%
Metro Council Chambers Production Equipment	17%	11%	6%	6%	39%	22%
Live Program over Cable System	17%	17%	17%	0%	33%	17%
Recorded Program Playback over Cable System	33%	28%	11%	0%	17%	11%

For any of the MetroTV facilities or equipment that a respondent gave a fair or poor rating, they were asked to explain why. Reasons included:

- Studio seems makeshift.
  - Most of the equipment has been older technology.
  - The studio is pretty tiny and limits a more creative set-up.
  - The studio is a corner office with very little ability to change, adjust or modify with new designs, decorations or equipment.
  - MetroTV can really benefit from a studio set up in a larger space.
  - The studio is very small and has a very short ceiling for lights.
- Use of a Producer's Own Production Equipment** – Thirty-nine percent (39%) of those who use MetroTV use their own equipment or facilities besides or instead of those from the MetroTV facility. The primary reasons listed for use of their own equipment include:
  - Use cameras, etc., for YouTube channel for smaller productions.
  - MetroTV is unable to film our events due to prior commitments/scheduling conflicts in some cases.

- Handheld video recorder from the Community Relations Department.
  - Audio equipment at Memorial Auditorium.
- **Ratings of MetroTV, Assistance, Equipment and Facilities Availability and Other Operational Characteristics** – Users of the MetroTV facility were asked to rate a variety of characteristics related to the operations of the MetroTV. Overall, the staff, assistance and other operational characteristics received high marks, with the majority falling in the Excellent or Good category. The highest ratings were received for the MetroTV staff (rated Excellent by 65% and Good by 29%). Six percent didn't know. Assistance during actual production also got high marks at 47% Excellent, 18% Good and 69% Fair. The highest Fair and Poor marks went to the MetroTV facilities at 24% Fair and 6% Poor. This was followed by MetroTV Program/Facilities Promotion at 13% each Fair and Poor, and MetroTV office location at 18% Fair. See table below. Also, more detail can be found in Attachment C-2.

MetroTV	Excellent	Good	Fair	Poor	No Opinion/Don't Know/Don't Use
Training	6%	12%	6%	0%	77%
Assistance During Actual Production	47%	18%	6%	0%	29%
Editing Equipment Availability	6%	18%	0%	0%	77%
Editing Assistance	35%	12%	0%	0%	53%
Playback/Scheduling	25%	19%	13%	0%	44%
MetroTV Facilities Staff	65%	29%	0%	0%	6%
MetroTV Facilities	6%	29%	24%	6%	35%
Hours of Operation	24%	41%	12%	0%	24%
Portable Field Equipment Availability	18%	35%	6%	0%	41%
Studio Availability	0%	24%	12%	0%	65%
Studio Location	0%	25%	6%	6%	63%
MetroTV Office Location	0%	35%	18%	0%	47%
MetroTV Program/Facilities Promotion	6%	25%	13%	13%	44%

Respondents were asked to explain why they gave a Fair or Poor rating to the MetroTV services or characteristics listed. Reasons included:

- Small studio.
- Facilities are limiting their ability.
- Studio is small and hard to access.

- Promotion is poor outside of the channel itself.
  - The station could use better studio facilities and program promotion.
  - Employees need to learn and stay updated on new equipment and software.
- **Scheduling Facilities and Equipment** – The majority of respondents to the question concerning scheduling facilities and equipment (88%) indicated that they have not had any problems in scheduling. Of the 12% who did, some of the problems that they noted included:
  - Not enough staff to accommodate our event.
  - Multiple productions that require two cameras simultaneously, causing scheduling conflicts.
- **Additional Government Access Capabilities Needed** – Forty percent (40%) of the survey respondents indicated the need for additional equipment and facility capabilities for MetroTV. The complete list can be found in Attachment C-2. The primary needs noted include:
  - HDTV capabilities for MetroTV, including both HDTV equipment and capacity on the cable system.
  - More streaming capabilities.
  - Higher server capacity for storage and archival of producers' video.
  - Use of the video-on-demand platform on the cable system.
  - Additional web navigation and interconnection capabilities.
  - Use of interactive television.
  - New wireless microphones and better professional cameras.
  - More full-time staff.
- **Problems with Getting Programs Aired on MetroTV Channel 25** – No survey respondent indicated problems getting programs aired on the MetroTV Access channel. Two respondents did indicate issues with time lags between production and airing and ensuring multiple airings.
- **Accessibility of MetroTV Channel 25 Programming on the Cable System On-Screen Program Guide and Menu** – Sixty-nine percent (69%) of respondents indicated that MetroTV Channel 25 programming was sufficiently accessible on the system, while 31% said “No.” Reasons for those indicating that it was not sufficiently accessible included:
  - Mix-ups or lack of information.

- Program guide is not available on the mini boxes.
  - There are programs missing a few days out on the DVR and regular set-top boxes. This prevents cable subscribers from being able to see upcoming titles and inhibits the recording of those programs.
- **Awareness/Promotion of PEG Access** – Nearly one half (47%) of respondents indicated that awareness/promotion of local Government Access programming is not adequate, including the majority of every group of respondents. These respondents provided a number of examples of additional promotional methods and activities that they thought would be beneficial, which are presented in detail in Attachment C-2. The primary ones proposed included:
  - More PSAs run on the other cable channels promoting MetroTV.
  - MetroTV should increase their presence on other platforms.
  - Like to see the programming and the station promoted in any way.
  - More of a presence on other agencies' web sites.
- **Final Comments** – Respondents were given a final opportunity to provide comments on any of the subject areas discussed or another area where they wanted to provide input. About two in ten of the survey respondents provided additional comments. The comments echoed similar themes to those covered in the survey to that point, including the need for more staff. A large number of the respondents wanted to express their thankfulness that MetroTV is available to them and that the end product is appreciated and beneficial. A full list of the final comments can be found in Attachment C-2.

## Findings from the Public Access Program Providers, Producers and Users Online Cable Television Assessment Survey <sup>19</sup>

A cable-related needs and interest survey was also completed by a diverse group of Public Access Program Providers, Producers and Users. Demographically, respondents who reported their gender were 68% male and 32% female. Twenty-eight (28%) were age 46-55, 39% were age 56-65 and 33% were age 66+. Respondents were primarily Caucasian (83%) and African/American (6%). One in 10 indicated that they preferred not to answer or skipped the race/ethnicity question entirely. A variety of education levels were represented, with 56% of those responding indicating some college or trade school, 22% had college degrees and 17% had done postgraduate work. Fifty-six percent (56%) were employed, 6% not employed and 38% were retired. Overall, the survey reflected a good degree of diverse respondents.

The key findings from the survey are as follows:

- **Years Affiliated with Access Programming** – Survey respondents showed a wide range of experience with the Public Access facilities and programming development in the Louisville Metro franchise area. Their affiliations spanned from one to 20 years. The average was 11.8 years.
- **Nature of Affiliation** – The largest number of respondents (54%) were non-profit representatives. The next largest affiliation was as an independent producer/Access volunteer at 42% of respondents. Four percent (4%) were educational organization representatives.
- **Overall Satisfaction with Current Public Access Operations** – Respondents indicated that they were primarily Satisfied (48%) with Public Access Channel 98's operations. An additional 43% were Very Satisfied. Five percent (5%) indicated Somewhat Satisfied and 5% were Not At All Satisfied.

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<sup>19</sup> Percentages are expressed in whole numbers throughout this section of the Report, rounded up at the .5 level. This means that totals may fall between 99% and 101%.

- **Interest and Involvement in Various Types of Programming** – Survey respondents expressed a wide variety of types of programming that they were interested and involved in. The number one category was Religious/Faith-based at 71%, followed by Public Outreach at 38% of respondents, Arts and Entertainment (33%), Public Empowerment and Community Engagement (19%) and Community Events (19%). The remaining categories ranged from 14% (Community News and Public Affairs) to 0% (Sports Coverage). The complete listing can be found in the Attachment C-1.
- **Training and Education Received** – Thirty-three percent (33%) of respondents indicated that they had received some type of television production or media training and education at the Public Access facility. This included training on studio equipment, camera operation, encoding, pre-recorded programs, lighting, public access operations and tips, suggestions and coaching.
- **Training Needs and Expectations** – All the survey respondents that indicated whether the training and education they received or provided met their needs and expectations, indicated “Yes.”

Some of the reasons given included:

- Ability to transfer programs into the file server without assistance.
- Assistance in every need or concern.
- Ability to create the show that I want to put my name on.
- Ability to use equipment and technology that I could not otherwise acquire.

A few respondents who indicated that they had not received education and training indicated a type of training that they needed. This included production and editing, all about how to make a show and any training offered.

- **Facilitation Assistance** – Survey respondents to this question indicated whether the assistance that they received at the facility during production was helpful. Forty-two percent (42%) indicated that assistance received at the Public Access facility was Very



Helpful with another 26% indicating Helpful. Sixteen percent (16%) indicated Somewhat Helpful, and 3% indicated that the question as not applicable to them.

The helpfulness of the assistance received was described in more detail by a number of the respondents. Their responses included:

- Learned how to encode my shows.
  - Very helpful assistance.
  - Learned how to do great programs.
  - Staff is very helpful.
  - Was shown how to watch time and which camera to face.
  - There have been times the show isn't aired or aired only part way; I think the staff is short-handed.
  - And other ways described in Attachment C-1.
- **Use of the Public Access Facility<sup>20</sup>** – The highest use of the Insight/Time Warner Public Access facilities was 47% utilizing the studio monthly. This was tied by 47% monthly use of encoding equipment. The highest level of use of the studio control room was 43% monthly, with an additional 7% utilizing the studio control room occasionally. Monthly was also the highest level of use for providing live programs over the cable system at 21% (79%, though, indicated that they never did such or this was not applicable to them) and recorded programs over the cable system at 43% of respondents. Thirteen percent (13%) also provided recorded programs weekly.

Insight/Time Warner's Public Access Facility	Weekly	Monthly	Occasionally	Never	N/A
TV Studio	0%	47%	24%	29%	0%
Studio Control Room	0%	43%	7%	43%	7%
Encoding Equipment (transferring completed programs to the file server)	0%	47%	16%	21%	16%

<sup>20</sup> The Public Access Program Providers, Producers and Users Survey was conducted in the Fall of 2012 before Insight/Time Warner moved the Public Access facility to Linn Station Rd. Accordingly, facility (building) use ratings will correspond to the previous Commerce Crossings location. The production equipment was moved from the prior location to the current location, so equipment ratings correspond to the equipment currently in use.

<b>Insight/Time Warner's Public Access Facility</b>	<b>Weekly</b>	<b>Monthly</b>	<b>Occasionally</b>	<b>Never</b>	<b>N/A</b>
Live Program over Cable System	0%	21%	0%	50%	29%
Recorded Program Aired over Cable System	13%	43%	13%	20%	13%

Overall, it appears that the highest level of use of the Public Access Channel and facility is monthly.

#### **Potential Availability of Portable Single Camera Remote Production Equipment --**

Forty-five percent (45%) of respondents to the survey indicated that it would be beneficial to have portable single camera remote field production equipment along with ancillary devices available to them at the Public Access facility. They went further to indicate the types of single camera remote production equipment they would need, including:

- A file-based digital camera.
- Camera batteries.
- LED lighting.
- Handheld and lavalier microphone.
- Tripod.
- Headphones.
- XLR cables.
- A good simple camera to tape skits or scenes outside the studio.
- The best available.
- Will work with what is best.

Survey respondents indicated a variety of uses for such field equipment, including:

- Producing programming about the Louisville Metro area.
- Interviewing individuals who cannot come into the studio.
- Tape live performances.
- Record special events.
- Shows on location.

Additional detail can be found in Attachment C-1.

**Potential Use of Multi-camera Remote Production Equipment** – Forty-five percent (45%) of survey respondents indicated that it would be beneficial to have several cameras along with associated remote production equipment in a multi-camera configuration available to them from the Public Access facility. They indicated the types of remote production equipment that they would need to include:

- Studio in a Box.
- Mobile production vehicle and Studio in a Box.
- Some were unsure about what type of equipment they would need.

Regarding how they would utilize such equipment, survey respondents indicated a variety of uses, including:

- For live concerts.
- Taped segments outside of the studio.
- Special events in our facility.
- Shooting shows on location.
- Other uses.

A full list of the responses is included in Attachment C-2.

**Potential Availability of Computer Editing Equipment** – Fifty-three percent (53%) of survey respondents indicated that the availability of computer editing equipment with nonlinear software to them through the Public Access facility would be beneficial. They indicated a variety of types of editing equipment and software that would be beneficial including:

- Adobe Premier.
- Final Cut Pro or Avid Media Composer.
- Pro Tools or Adobe.
- Something a layperson can handle.

They further indicated how they would utilize such equipment, including such reasons as:

- Download video cards and edit programming.
- Allow me to edit my show which will allow me to produce a professional product.
- Produce higher quality programming.

Additional detail can be found in Attachment C-1.

- **Ratings of the Public Access Facility** – Here respondents were asked to rate the condition of the Public Access facilities. Respondents gave recorded program aired over the cable system their highest Excellent rating (41%). Thirty-eight percent (38%) of respondents gave the TV studio control room the highest Good rating. The TV studio received the second highest Excellent rating (31%).

The largest Fair (26%) and Poor (11%) ratings went to encoding equipment. Live programming over the cable system received the largest number of No Opinion/Not Applicable responses at 63%.

Insight/Time Warner Public Access Facility	Excellent	Good	Fair	Poor	No Opinion/Don't Know	N/A
TV Studio	31%	25%	13%	6%	25%	0%
Studio Control Room	25%	38%	13%	0%	25%	0%
Encoding Equipment	16%	32%	26%	11%	16%	0%
Live Program over Cable System	13%	13%	6%	6%	44%	19%
Recorded Program Aired over Cable System	41%	24%	12%	6%	18%	0%

For any facilities or equipment that respondents gave a Fair or Poor rating, a number of reasons why were provided, including:

- Equipment set to the wrong settings.
- Video comes out with poor color.
- Most of the recording media playback is either old commercial or semi-professional gear.
- Encoding room is a mess.

- When aired, the sound is not good.
  - Room is too small, equipment out of date.
  - A lot of the equipment needs to be replaced.
  - Studio is not large enough and equipment is very outdated..
- **Use of a Producer's Own Production Equipment** – A significant percentage of those who use Public Access Channel 98 use their own equipment or facilities besides or instead of those from Insight/Time Warner. Specifically, this applies to 68% of respondents. The primary reasons listed for use of their own equipment include:
    - Own my own equipment.
    - Church wanted a church setting.
    - Have a studio in our basement.
    - Church equipment and location.
    - Jefferson County Public Schools camera and studio.
  - **Ratings of Insight/Time Warner Public Access Training, Assistance, Equipment and Facilities Availability and Other Operational Characteristics** – Users of the Public Access facility were asked to rate a variety of characteristics related to the operations of the facility.

The staff received the highest marks, with the all falling in the Excellent category (61%) followed by the Good category (39%). Assistance during the actual production also received high marks at 26% Excellent and 32% Good. See tables below. Also, more detail can be found in Attachment C-1.

Public Access Services and Characteristics	Excellent	Good	Fair	Poor	No Opinion/Don't Know/Don't Use
Training	16%	26%	0%	5%	53%
Assistance During Actual Production	26%	32%	5%	0%	37%
Playback/Scheduling	37%	16%	21%	5%	21%
Public Access Facility Staff	61%	39%	0%	0%	0%
Public Access Facility	37%	26%	21%	5%	11%
Public Access Production Equipment	22%	22%	28%	6%	22%

Public Access Services and Characteristics	Excellent	Good	Fair	Poor	No Opinion/Don't Know/Don't Use
Hours of Operation	35%	35%	18%	0%	12%
Encoding Equipment Availability	21%	37%	21%	0%	21%
Studio Availability	21%	26%	5%	0%	47%
Studio Location	33%	33%	6%	0%	28%
Public Access Office Location	32%	47%	11%	0%	11%
Public Access Program/Facility Promotion	32%	26%	16%	0%	26%

For any services or characteristics that respondents gave a Fair or Poor rating to, a number of reasons were given why, including:

- Playback sometimes start early.
  - Playback/scheduling has the wrong programs getting aired so often.
  - A lot of equipment is in need of repair or replacement.
  - The facility could be bigger and the equipment could be better.
- **Scheduling Facilities and Equipment** – The majority of respondents to the question concerning scheduling facilities and equipment (89%) indicated that they have not had any problems in scheduling. Of the 11% who did, some of the problems that they noted included:
    - It's been difficult in the last few years.
    - I was asked to come at another time due to problems at the studio.
  - **Additional Public Access Capabilities Needed** – Nearly half of the survey respondents indicated the need for additional capabilities for Public Access. The complete list can be found in Attachments, Section C. The primary needs noted include:
    - HDTV capabilities for Public Access.
    - Streaming.
    - New ways and initiatives not yet used.
    - Continuation of services at the old location.
    - The additional capabilities noted elsewhere in the survey (field production, editing, etc.).

- **Problems with Getting Programs Aired on the Public Access Channel** – The vast majority of survey respondents (83%) indicated no problems getting programs aired on the Public Access channel. Of the 17% of those who did indicate problems, this included problems with the servers going down, programs not being aired on the right weeks, and not being able to schedule programs weekly.
- **Accessibility of Channel 98 Through the On-Screen Guide** – All survey respondents indicated that they could access Channel 98 sufficiently through the on-screen program guide and menu.
- **Awareness/Promotion of PEG Access** – Two-thirds (67%) of respondents indicated that awareness/promotion of local PEG Access programming is adequate. For the 33% that indicated it was not adequate, they provided a number of examples of additional promotional methods and activities that they thought would be beneficial, which are presented in detail in Attachment C-1. The primary ones proposed included:
  - I think there could be spot commercials.
  - I'd like to see some PSA time utilized by Insight/Time Warner to advertise some programming.
  - Getting the word out more with Public Access would be a good thing.
  - More promotion of shows on Insight Cable.
- **Final Comments** – Respondents were given a final opportunity to provide comments on any of the subject areas discussed or another area where they wanted to provide input. About three in ten of the survey respondents provided additional comments. Many of the comments echoed similar themes to those covered in the survey to that point, including:
  - It should stay in Louisville.
  - Service in regard to programming air times is extremely poor, understaffing could be the main reason for the problem.
  - Thankful for the staff.
  - Thank you for the ability to use the service.

A full list of the final comments can be found in Attachments, Section C.



## Public Access in Louisville, KY Staff Questionnaire Response

Rather than having individual Public Access staff respond to the questionnaire, Time Warner Cable (TWC) issued a response for CBG's and its Team Partners' review. The response indicated that Insight/Time Warner has six (6) employees that work on Public Access at least part of the time and have been working with Channel 98, between two and seven years. The time devoted ranges from 5 - 80% of their work time for each of the employees.

These employees have a variety of duties, including scheduling and training Access users for studio shoots and the encoding of programs, responding to technical issues, overseeing the Public Access schedule and facility, maintaining equipment and communicating information to Public Access users.

TWC indicated that the availability of the facility is promoted on Channel 98 and by email. Note that Public Access producers indicated that there should be wider promotion of the availability of the facilities in their survey and focused discussion responses.

TWC indicated that television production and media training and education is provided to those that use the Public Access facility, including training on encoding, studio production and use of the production system.

In a number of areas, TWC did not respond to the survey questions, including whether there are any additional types of training and education that needed to be provided.

TWC indicated that it provides assistance and facilitation to users of the facility concerning those same areas discussed above.

TWC indicated that they have no plans to provide additional field equipment for users, or provide multicamera remote video production equipment for users. Note that again, the need for such equipment was indicated by Public Access producers and facility users in their response to surveys and focused discussions.

Insight/Time Warner has indicated that it believes that encoding constitutes “editing”. We believe that any acceptable definition of editing is not equivalent to encoding, but instead involves the ability to take program content that has been recorded, manipulate it, add graphics and effects, reduce it for time, intersperse different video elements together, and employ a number of other functions provided by editing systems software, such as Final Cut Pro and Adobe Premier. Public Access producers and users agree in their responses and desire such editing capabilities. This is also a requirement of ’98 Ordinance, Section 46(2). TWC has said in its response that “We continue to explore ways to improve the editing experience”. When questioned on when acceptable editing equipment would be provided, TWC indicated that it had not made that decision yet.

In response to questions concerning ratings of access services, characteristics and facilities, TWC indicated that “Public Access services are provided as required by franchise”.

In response to questions regarding problems related to scheduling facilities or airing programming, TWC indicated that there have been occasional problems, but largely the current system is working well.

When asked about what additional services and capabilities need to be provided in the near or longer term, TWC indicated that “Public Access facilities in Louisville meet and exceed franchise requirements.”

## **Focused Discussion with Louisville Public Access Channel 98 Program Providers, Producers and Facility Users**

A focused discussion was held with a variety of current Public Access Channel 98 Program Providers, Producers and Facility Users. The key findings for that focused discussion are as follows:

- **Public Access Channel 98 is a valuable resource** – Participants agreed that they were able to reach a significant audience through Public Access Channel 98 and that people watch their programs regularly. Overall, it's very important to continue having Public Access to provide truly local community programming.
- **A variety of equipment and facility enhancements are needed** – Producers indicated a number of facility and equipment improvements that would enhance their ability to produce high quality programs of interest to the community, including:
  - Wireless microphones.
  - Editing facilities, including a monitor designed for editing. Participants indicated that it should be available in both MAC and PC platforms along with Pro Tools for audio editing.
  - Handheld remote cameras of an up-to-date nature are needed.
  - More cameras are needed.
  - Mobile production such as a Studio in a Suitcase would be helpful.
  - More advanced CG is needed.
  - HD equipment and distribution is needed.
  - Greater switcher capability is needed, including multiple inputs and the ability to put audio over video B roll.
  - A bigger space, including a studio space big enough for an audience would be helpful.
  - Online streaming of programming would be useful.
  - A library of programs on demand would be helpful.

- **Various operational improvements are needed** – Participants indicated a variety of operational improvements that would enhance their ability to produce programming including:
  - Having evening and weekend hours.
  - Having a website with communications between producers and producers and staff.
  - Having additional training.
  - Providing additional outreach to viewers, including more promotional opportunities such as advertising Public Access services and programming.
  - Allowing sponsorship opportunities for program producers.
- **Public Access should have higher visibility in the medium and longer term** – Participants discussed a need to evolve Public Access to program to a broader audience, with more community involvement. They believe that this will require attracting new people to participate, including more staff, making it convenient for producers, guests and others involved, and that this ultimately will provide higher quality, more highly viewed programming for the Insight/Time Warner system.

Our review and analysis of all the site visits, meetings, focused discussions, interviews, online, written and telephone surveys and other written materials resulted in the Recommendations found below concerning both baseline equipment that should be established for the Government and Public Access entities and specific facilities and equipment that need to be provided for each entity during a projected ten year timeframe. These Recommendations are detailed below.

## **Review of Key Functional Areas in the MetroTV, Insight/Time Warner Public Access Channel 98 and Associated Facilities**

The goal of the PEG Access Equipment Projection Baseline Definition is designed to help Louisville Metro, MetroTV Government Access and Insight/Time Warner Public Access Channel 98 transition from their current video production environment to high-definition and other digital technology in order to meet the needs assessed. The Needs Assessment Equipment Upgrade and Replacement spreadsheets include a description of the type and range of equipment needed in order to function adequately at the HD digital level. Some equipment that is not related to digital transition, but is still critical, is also included in the spreadsheet.

The projections in the spreadsheets and the corresponding findings and recommendations discussed below were developed from a review of facility inventories as well as physical walkthroughs. Additional information was obtained through interviews with staff, survey results and focused discussions with pertinent Communities of Interest. The upgrade and replacement schedule and facility development projections were constructed to meet the needs and interests identified, taking into account industry standards, the typical useful life of the equipment specified and the type of facility needed.

It should be noted that technology tends to change quickly and programmatic initiatives shift over time, so actual usage and replacement costs may vary from year to year. This upgrade and replacement schedule is meant as a guide and recommendations for budgetary purposes and will need to be periodically updated so that Access facilities will stay current with technology. Additionally, the specific equipment may vary based on the vendor chosen at the time of procurement.

It is important to understand the difference between standard definition digital (SD) and high definition digital (HD) equipment. SD equipment can either be a 4x3 or 16x9 aspect ratio, but is in a digital format, not analog. SD could be anything from consumer grade to broadcast quality, whereas HD would always have a 16x9 aspect ratio and usually produces a much higher quality than SD video.

Essentially, just like the television production world has moved over time from black and white to color, VHS to DVD (and now Blu-ray) and from analog to standard definition digital, it is now moving to a more fully high-definition digital environment. This means that eventually little or no standard definition digital production and post-production equipment will be left to procure (this is already happening with consumer electronic devices), nor will replacement parts to repair existing SD equipment or support from manufacturers, vendors and distributors for such equipment, be available. Additionally, the cost for high-definition equipment continues to fall, meaning that it is now and will continue to be achievable at a reasonable cost during the transition timeframe proposed.

The reason the broadcast, cable and satellite industries have moved to HDTV is because of the obviously better picture quality and sound quality, which consumers have also recognized. As of January 2012, over 69% of US households have at least 1 HD television set, up from 17% in 2006, according to published research. Over the past 5 years, 52% of US households adopted HDTV. According to the research, the percentage of HDTV homes continues to grow rapidly.

While there remains a small gap between the number of consumers that have HD televisions and the number that actually receive HD programming, this gap is decreasing. For example, 75.5 % of television households have HD capable sets while 72.9% are receiving HD programming. This gap is steadily decreasing and we expect it to continue to decrease as cable systems and other providers continue to heavily promote HD programming and potentially migrate to all HD content over the next few years.

Accordingly, we are recommending new equipment purchases be HD, but in some cases still SD-compatible based on integration with existing equipment. Keep in mind this is a baseline only. MetroTV and Public Access Channel 98 may choose to integrate additional options or equipment above and beyond the minimum baseline for their particular needs.

The HD digital baseline transition needed for the major equipment in each functional area is as follows:

### **Government Access-MetroTV**

#### **Council Chambers/Council Chambers Control**

The Council Chambers and Council Chamber Control for MetroTV is the functional area that produces and televises live governmental meetings. We have split equipment between Council Chambers and Council Control in the Equipment and Replacement spreadsheet for ease of identification. The spreadsheet also indicates replacement of all equipment in Year 4 and Year 10 indicating a 6-year replacement schedule.

In the Council Chambers, we have identified these key pieces of equipment:

- Cameras
- Audio/Microphones
- TV Monitor

In the Council Chambers Control Room, we have identified these key pieces of equipment:

- Switcher
- Robotic Camera Control
- Character Generator
- Digital Audio Mixing Consoles
- Multi-view Monitoring
- DVD Recorder
- Engineering/Confidence Monitor

It should be noted that the Character Generator listed in the Council Chambers Control Room may or may not be needed based on the type of switcher purchased. Many of today's switchers have built-in Character Generator technology and if this type of switcher is purchased, there may be a cost savings.

## **Government Facility**

### **Field Acquisition**

Field acquisition is the functional area whereby MetroTV producers record footage for television programs remotely in the field at events, government agency offices and other sites outside of MetroTV's offices and studio production facilities. Field acquisition is the easiest to transition to HD digital because it is an independent process that does not rely on the other functional areas. However, due to requirements for Government Production, the cameras and Flypacks recommended require higher end capabilities with more robust features. The Equipment Upgrade and Replacement spreadsheets account for these additional capabilities. Additionally, because the Government Production staff is currently shooting on HD field cameras, we are not recommending replacement until Year 3 of the projected 10 timeframe.

A higher end Flypack system is also recommended. This system could include three robotic or stand-alone field cameras. It also includes a larger input audio mixer, multi-viewer and a hard drive recorder all housed in a flight case that could be used both indoor or in a sprinter type van, which is also included in the spreadsheet.

### **Government Production Studio/Government Production Studio Control Room**

In this studio, MetroTV records and produces interview segments and discussions with governmental leaders and other personnel on various topics related to government initiatives, policies and programs. The current Government Facility, although it has a small studio, lacks the space for a traditional studio as well as a traditional studio control room. In the attached spreadsheet, we are recommending equipment that is typically used in traditional studio and studio control spaces. We are also including a separate facility expansion plan. It was noted in our site visit that the Studio is mainly used for single-camera shoots and is Standard Definition only. We have provided equipment to upgrade this technology.

The Government Production Studio and Studio Control needs are somewhat similar to those for the Public Access Studio and Control, but are geared toward the needs of professional staff



producers and the informational and meeting coverage types of content they produce. The following specific requirements are noted and allocated for Government Production:

The Government Production Studio should be capable of various productions including discussion programs and talk show interviews. MetroTV is currently utilizing traditional cameras in their Production Studio meaning they require a camera operator mainly using a single camera. We are recommending a configuration that uses multiple robotic cameras in HD to match the capabilities of the Studio Control system we have projected.

Currently, MetroTV has a limited Studio space with no set storage capability. As described in more detail in the facility expansion plan, we are recommending a larger studio space that can house the equipment we have identified in the accompanying spreadsheet. We have also included a line item for Virtual Set/Chroma-key production. This will further enable MetroTV to expand the look and type of productions beyond what traditional sets can offer.

MetroTV is currently utilizing portable lighting in their small studio. We are recommending an upgrade to LED lighting through the life of the projected 10-year timeframe. Where LED lighting might appear to be more expensive than traditional lighting, substantial cost savings will be realized from the use of far less energy to run the lights as well as less energy to cool the studio. Also, traditional tungsten lighting may last 1000 hours per bulb compared to LED lighting lasting around 50,000 hours, thus reducing the need for multiple replacements over time.

Government Production Studio Control is similar to the proposed Public Access Studio Control utilizing a similar type of equipment and functionality. We are, however, allocating additional funds for the Government Production switcher to enable greater functionality. Since the studio is capable of several types of productions, a switcher with greater enhancements such as increased Aux buses as well as increased number of effects buses would allow more capabilities in video replay and clip-store functions.

### Post Production

Post Production is the functional area where information is transitioned, shaped and manipulated from acquisition from either field or studio production, and transformed into a finished product. This includes editing of video and audio and addition of graphics and effects. Post Production is another functional area that lends itself to ease in transitioning to HD due to the fact that it can be done independently. The major types of equipment involved in the baseline transition are ingestion, monitoring, edit equipment, and digital audio mixing. Moving forward, the editing ingestion process needs to match the camera recording technology used.

### Infrastructure

Infrastructure in any facility includes all the components needed to enable proper equipment functionality and interconnectivity. Infrastructure includes all equipment such as the Optical Transmitter/Receiver, Signal Converters, wiring and cabling needed throughout the facility to produce and transport high-quality HD signals. The infrastructure is the backbone for all existing and new equipment needed to communicate throughout the facility. It should be noted that Staff indicated an interest in having the ability to shoot live from more locations throughout the city. We have provided for that capability by adding four optical transmitters/receivers to be used for live feeds. The fiber cabling needed for such connections is covered under the Institutional Network Report Section.

It was noted on the site visit that the Government Access playback/headend capability is housed in the Council Control Room which is located across the street from the rest of the Production Facility. If it is desired to continue with this separated location for playback, then using the existing IP infrastructure to transfer files to the playback system can continue to be used. But if the desire is to televise or cablecast live programming from the Studio, then a fiber connection is recommended between the Studio and the playback system.

As with Public Access, HD routing is also needed in the facility. Cost varies widely depending on the number of inputs and outputs needed but the baseline should provide a 32 X 32 matrix routing solution.

### Headend/Playback

The definition of Headend/Playback is all the equipment needed to sequence and transport programming to the cable company for subsequent distribution over the cable system and includes equipment that stores programming. The major components of this system are the production server, character generators for graphics and special effects and monitors that allow for program viewing and editing. The production server needs to have the capability for both standard and HD playback, moving to all HD in the future, have the ability to have programs transferred to them over the network (real-time ingestion) and have a robust scheduling capability to enable a well-rounded playback resource. MetroTV is currently using an SD-capable playback server because the cable provider is providing them only in SD. As MetroTV migrates to all HD digital technology, it should be ready and equipped to cablecast with HD playback capabilities. We have estimated costs to upgrade the current playback system in the attached spreadsheets.

Along with the Playback system, we have included Multi-viewer monitoring capability to allow the viewing of multiple signals on a single monitor. These signals could be various live feeds or signals from other areas in the operation. This will eliminate the need for traditional TV monitors and enable greater viewing of multiple sources. We have included two monitors in this system for maximum benefit.

Currently, MetroTV is utilizing an outside provider for On Demand and Video Streaming. Accordingly, we have not included equipment in the spreadsheet to accommodate such capabilities. If MetroTV decides to provide these services themselves, video streaming equipment will need to be purchased and network infrastructure would need to be analyzed to see if it could support this technology.

### Archival/Storage

This functional area includes the equipment needed to store programming on dedicated computer systems and allows video editors to share information with each other. As with Public Access, we are recommending that MetroTV migrate to hard disk storage starting with 10 terabytes of storage space which should be adequate for the first half of the 10-year projected timeframe.

Then we are projecting an additional 10 terabytes giving a total of 20 terabytes at year 7 enabling them to acquire more HD footage and providing increased capacity for their needs.

### **Mobile Production**

Mobile Production is the ability to produce programs from around the community either using a production vehicle with built-in equipment or using equipment that can be removed from the vehicle and brought into events. Mobile Production is especially beneficial for outdoor events or locations that do not have production equipment already installed. A Mobile Production Van is a resource that is an important component of production systems where much of the production work is in the field. Because of this, it is important that the equipment be state of the art and its capabilities match the capabilities used throughout the facility. Consistent with this, we recommend that the Mobile Production Van be capable of housing and transporting the HD Flypack.

The vehicle purchased must be capable of fully integrating with the portable Flypack system, have patch panels and a climate control system.

### **Public Access Channel 98**

#### **Post Production-Public Access**

Post Production is the functional area by which information is transitioned, shaped, manipulated and polished from acquisition from either field or studio production to a finished product. This includes editing of video and audio and addition of graphics and effects. Post Production is a functional area that lends itself to ease in developing in HD due to the fact that it can be done independently from other processes.

It was noted in our site visit that the Public Access facility does not currently offer any editing capability for Public Access Producers. We are recommending a cost-effective, comprehensive solution for Public Access editing. This includes a combination of one traditional edit system and 5 portable edit systems. This will utilize card readers and notebook computers for the

portable solution and ingestion, digital audio consoles and monitoring for the traditional edit suite.

Ingestion is the ability to move video and audio into the computer environment from various sources for editing. It should be noted that many Public Access Producers use their own cameras for Field Acquisition. Moving forward, the Public Access facility should migrate to file-based recording and editing using technology such as SD cards. The editing ingestion process should match the camera recording technology type used.

As with field monitoring, edit monitors need to be provided to view digital signals.

### **Field Acquisition-Public Access**

Field Acquisition for Public Access includes equipment that producers utilize to record programming throughout the community. These can be interviews, community events or anything of local interest. Field Acquisition is the easiest to transition to HD digital because it is an independent process that does not rely on the other functional areas. Through both the site visit and meetings with Public Access Producers, it was determined that Public Access Channel 98 has limited field acquisition equipment available and what is available is outdated. Public Access Channel 98 is only providing field equipment in Standard Definition and replaying in Standard Definition. High Definition is not supported at this time. We are recommending implementing cameras that have the full capability of shooting HD. Current HD cameras offer many professional capabilities and are cost-effective, lightweight, easy to use, and can create spectacular images. The camera field packages recommended all include one HD camera, one tripod, one complete lighting package, and two channels of wireless audio and accessories.

Flypacks are portable units that would enable Public Access Channel 98 users to produce a complete multi-camera production in the field, indoors or where it may be difficult to use the mobile production vehicle. The price range varies greatly on Flypacks depending on the flexibility needed. The system recommended for Public Access would be used for indoor use that would include a small portable switcher and two stand-alone robotic cameras, but would also have the capability of attaching stand-alone field cameras into the system for greater

flexibility. This type of package would be easy to set-up and could be easily used by Public Access Producers.

Generally, Flypacks are used for indoor purposes, such as coverage of sporting events, meetings, and special events. The type of system priced for Public Access would enable easy portability so that Access users can transport the system as needed.

### **Studio Acquisition-Public Access**

Studio Acquisition encompasses the facilities and equipment needed to produce programming in a studio environment. Programming could range from a panel discussion with multiple people to a single-person informative presentation. Studio Acquisition, along with Studio Control, is considered the main nerve center of many production facilities. This is why there are typically relatively large amounts of resources and funds committed to these two areas.

Public Access Channel 98 has one studio and it is equipped with three JVC field cameras that have been adapted for studio use. We are recommending that these cameras be upgraded to HD capability and be robotic, enabling one operator in the Control Room to control all three cameras, including panning, zooming and focusing on the subject. This will also decrease the need for large numbers of production volunteers such as camera operators to produce programming from the studio. We have also included two studio monitors that could be used as part of the set or for other monitoring as needed.

LED studio lighting fixtures and dimmer control is also included in the replacement schedule as the current lighting system is outdated and consumes a great deal of energy compared to LED lighting.

### **Studio Control-Public Access**

Studio Control houses all the equipment necessary to produce, control and monitor any of the studio productions and shows. Studio Control is an important functional area. The digital baseline includes all of the crucial components that must be transitioned to HD, with technical comments for each. The major components include: a production switcher, robotic camera

control, digital audio consoles, monitoring (engineering monitor and multiviewer), and digital audio components. In order to stay current with technology and to be competitive with other channels on the cable system, investing in studio control upgrades will be essential.

It was noted during the site visit that the current switcher is outdated technology, Standard Definition only, and is no longer supported by the manufacturer. We are recommending a new switcher capable of Standard and High Definition along with built in graphics and multiviewer monitoring as well as digital file playback and chromakey technology. This will enable Public Access Producers to create a wide variety of programs from the studio environment.

We have also recommended the transition to digital audio and have added a digital audio console with 8-10 inputs. Digital audio consoles offer a greater flexibility in effects and greater quality.

Also in the spreadsheet, line items are included for HD cabling and distribution as well as a professional level DVD Recorder and Hard Disk Recorder for added flexibility.

### Archival/Storage

This area includes the equipment needed to store programming on dedicated computer systems and allows video editors to share information with each other. As Public Access Channel 98 evolves and programs are developed to be post-produced and be in HD, the need for the migration to hard drive storage will be needed. Currently, Access Producers use various tape-based technology to record programming. Current formats include Hi-8, VHS, DVD and DV-CAM. Hard Disk storage enables producers to save and share their work.

Archival and storage should be used to house finished programs that can be accessed by citizens for on-demand viewing of programs. Not only can programs be archived, but they can be categorized by subject, producer, event type, or date and can be stored in various file types. Public Access Channel 98 does not offer file-based technology and Access Producers are limited by only being able to encode the programs real-time from the DVD's or taped-sources into the playback system. This includes programs recorded in the Studio. They are recorded to video tape and need to be further encoded into the playback system in real-time as a separate process.

We are recommending that Public Access Channel 98 migrate to hard disk storage starting with 10 terabytes of storage space which should be adequate for the first half of a projected 10-year timeframe. Then, we are projecting an additional 10 terabytes giving a total of 20 terabytes at year 7 enabling them to acquire more HD footage and increased capacity for their longer term needs.

### Infrastructure

Infrastructure includes all equipment such as, Optical Transmitters/Receivers, Signal Converters, wiring and cabling needed throughout the facility to produce high-quality HD signals and connect various functional areas to each other. Since the infrastructure is the backbone for all existing and new equipment needed to communicate throughout the facility, it is essential that this functional area be outfitted with the ability to handle the new and existing equipment.

It was noted in the site visit that much of the existing infrastructure is analog and Standard Definition only and using mini DV tape for Studio Recording. It was also noted that all encoding done to playback programs on the channel needs to be done in real-time. This is a very time-consuming and labor intensive process and can be eliminated in a fully digital-based environment.

It is important to have the right infrastructure in place to support the conversion of SD to HD. Key pieces have been detailed in the Needs Assessment Equipment Upgrade and Replacement spreadsheets.

An Optical Transmitter and Receiver has been included in the spreadsheet to allow the transmitting of the cable channel to the system. It's important to note that we have only estimated the cost for a replacement Fiber Transmitter and Receiver. We have not included any costs for the actual fiber lines themselves. We understand that an optical transmitter is currently in place that transports the programming from the Linn Station Rd public access facility to the Insight/Time Warner headend. SDI cabling is essential throughout the facility to enable HD signal flow. If current cabling does not support SDI signals, we are recommending SDI cabling to replace the existing cabling in the facility.



We are recommending a small to mid-size A/V routing system capable of HD routing of signals from various locations including Studio, Editing, and Playback with capacity for additional feeds if necessary. The baseline provides for a 32 x 32 matrix routing system with cabling.

### *Headend/Playback*

The definition of Headend/Playback for Public Access is all the equipment needed to play programming over the cable system and includes equipment that stores programming. The major components of this system include the production server, character generators for graphics and special effects and monitors that allow for program viewing and editing. The production server needs to have the capability for both standard and HD playback, moving to all HD in the future, have the ability to have programs transferred to them over the network (real-time ingestion) and have a robust scheduling capability to enable a well-rounded playback resource. Public Access Channel 98 is currently using an SD playback server and is currently just playing back in SD over the cable system. As the television production world continues to migrate to more and more advanced digital technology, Public Access Channel 98 should be ready and equipped to cablecast with HD playback capabilities so we are recommending the SD server be upgraded to HD to enable this technology. We have estimated costs to upgrade the current playback system in the attached spreadsheets.

Along with the Playback system, we have included a Confidence Monitor capable of monitoring the Public Access channel.

Another item we have added to the Headend/Playback is a stand-alone Character Generator to enable the insertion of channel branding and ID information as well as emergency text and graphics. We have recommended a single channel character generator to feed the Public Access channel.

### *On Demand/Streaming*

For the purposes of this section, on demand and streaming video simply is defined as video content that is available via the internet or mobile devices. Both Internet streaming and Video on

Demand (VOD) streaming have become an integral part of many production facilities' outreach to the public, especially consumers who watch television on multiple platforms. With this in mind, video streaming equipment needs to be capable of handling signals within the facility, be HD compatible and in most cases, capable of running 24/7. The equipment should also include both live streaming and VOD capability and is included in the cost for the type of playback system we are recommending. This system should be robust enough to enable the simultaneous encoding of multiple feeds and capable of up to 2 streams per encoder thus saving time and increasing efficiency for staff and the turnaround time for public access. The price reflects the cost for the encoder only.

### Options

We have included an optional category for the Public Access facility to utilize traditional studio cameras in place of robotic pan/tilt cameras if so desired. The cost reflects the camera, CCU, camera head, tripod and lens. If this option is chosen, it would replace the Public Access line item currently shown for the Public Access robotic studio cameras.

### **Ancillary Equipment**

The purpose of this category is to enable MetroTV and Public Access to budget for equipment needed that is ancillary to the upgrades, replacements, and enhancements recommended herein. This type of equipment would include items such as microphones, conventional sets, teleprompter equipment, PA, miscellaneous stands, tripods, recorders, computers, office equipment, workstations, LAN/Firewall upgrades, copy machines, printers, phone systems, desks, fixtures, etc, plus their upgrades and replacements. Basically, it is equipment needed to complete the production facility.

## **Facility Expansion**

### **Government Access - MetroTV**

A review of the existing MetroTV government production facilities indicate that they need an expansion in facility space to meet the needs assessed. For MetroTV, we are recommending three changes. First, the current studio size is insufficient to develop the range of studio-type productions needed in both the near-term and longer-term. Accordingly, we have recommended a complete new studio equating to 1,200 square feet. It is conceivable that such space could be allocated in another governmental facility in the downtown area, which could then be networked back to the main facility where existing MetroTV facility operations are located. In tandem with the new studio, a separate studio control equating to 140 square feet should be developed as well.

Then, we recommend moving the headend/playback operations from the current Metro Hall facility (where it is co-located with Government Chambers Control), to a room within the current MetroTV operations location. We recommended that 81 square feet be developed. This could take the place of the current room allocated for studio operations, or be developed separately.

### **Public Access Channel 98**

A review of the Public Access Channel 98 current facility (the new facility on Linn Station Road) indicates that it also needs an expansion in facility space by Insight/Time Warner to accommodate the needs assessed.

Specifically for Public Access Channel 98, while the new studio is larger than the previous studio, it has been developed in an oblong shape that is not as conducive to a wide variety of studio productions as a more traditional square-shaped facility. Accordingly, we recommend adding 400 square feet to the existing facility to develop a more traditional studio shape that would better facilitate a wide range of productions. Along with this, we have recommended that the studio control be expanded so that the encoding area could be placed into a separate and isolated part of the facility. We have recommended approximately 140 square feet to separate both of those areas. We have further added 36 square feet in order to be able to facilitate a

standalone edit suite, as well as 81 square feet to have a headend/playback area that can either be combined with the square footage currently allocated to encoding, or be a separate area.

Finally, with the advent of up-to-date field equipment, we recommend an additional 48 square feet for a field checkout area. This then would require adding 705 square feet to the current Public Access facility, including reconfiguration of current space during the additions as indicated above.

### **Personnel and Operational Enhancements**

#### **Government Access - MetroTV**

Based on the needs demonstrated by those that utilize and view the services and programming provided by MetroTV, four additional staff will be needed in the near future in order to help meet the needs for increased content development. The type and number of personnel needed (including estimated annual salary ranges) are the following:

- **Executive Producer (1):** Working with the Multimedia Services Supervisor, this person is needed to oversee all aspects of video production ranging from supervising producers, show idea development, shoot supervision and fact-checking. The Executive Producer will also manage the program scheduling, making sure that productions are completed on time and on budget and ensuring the quality of the programming. (*Salary Range: \$40,000 - \$55,000*)
- **Video Engineer (1)** – Based on the existing and projected equipment needed, in addition to operating such equipment, a video engineer is needed to develop the settings needed on engineering equipment, install upgrades or updates to the equipment and perform repairs when necessary. Successful video engineers possess communication skills to work with other members of the broadcasting team, problem-solving and mathematical abilities and attentiveness to detail. Manual dexterity, the ability to work with computers

and electronic equipment and the ability to make decisions quickly to avoid program interruptions are also necessary. (*Salary Range - \$38,000 - \$50,000*)

- **Field/Studio Producer (1)** – Similar to current personnel, an additional field/studio producer is needed who will be responsible for managing television production and support activities, including concept development, talent, A/V services, business affairs, etc. (*Salary Range – \$35,000 - \$50,000*)
- **Post Production/Editor (1)** - This person is needed and would be responsible for technical and creative work in the preparation and completion of video projects. A person allocated to this position is responsible for operating computer-controlled video editing equipment and components which assemble media projects for public presentation. Work is performed with considerable independence under the general direction of an administrative superior, project producer or video director. (*Salary Range – \$25,000 - \$40,000*)

### **Public Access Channel 98**

Beyond the staff enumerated in interviews with pertinent Insight/Time Warner personnel and Time Warner Cable's response to the written Public Access staff survey, the needs demonstrated by those that utilize and view the services and programming provided by Public Access Channel 98, indicate the need for an Assistant Director to assist the Director with a variety of existing and projected new tasks.

Specifically, the Assistant Director would assist the Public Access Director and be responsible for all media activities for Public Access; developing the media plan; selecting media to support Public Access objectives within a predetermined budget; supervising others; and has both professional and client contact. The Assistant Director would head up training related to newly implemented editing functions and assist with training on studio and field equipment. The Assistant Director would assume the Director's responsibilities when the Director is not available to Public Access users. (*Salary Range – \$58,000 - \$70,000*)

## **PEG Access Needs Assessment Conclusions And Recommendations**

After review and analysis of all the data and information gathered from the focused discussions, interviews, on-site facility and equipment reviews, surveys and other related documentation and materials during the cable-related PEG Access Needs and Interests ascertainment, CBG has developed the following conclusions and recommendations (along with others noted in companion sections of the overall ascertainment report, such as the Residential Community Needs Assessment, Community Organization/Government Agency Survey analysis, and analysis of the needs of various constituency groups). Specifically, the following conclusions and recommendations focus on facility and equipment needs, access channel capacity and digital delivery and service expansion needs.

- 1. Access Channel Capacity** – Access Channel capacity and related channel positions, satisfactory to current and projected PEG Access providers need to be provided as follows:
  - a. Continuation of the Metro Government MetroTV Channel 25
  - b. Continuation of Public Access Channel 98
  - c. Continuation of reserved capacity for 1 additional Government Channel
  - d. Additional reserved capacity for 1 Educational Channel
  
- 2. Access Equipment** – New, upgraded and replacement equipment for Public Access Channel 98 and MetroTV Governmental Access Channel 25 needs to be provided consistent with the projections shown in the attached spreadsheets (Attachments C-3 and C-4). Equipment category projections have been made from the information provided and analyzed, along with projections for expansions in Access content development. Our review indicates that the following Access equipment funding would be needed over the course of any ten year projected timeframe. These projections can be extrapolated if this timeframe is elongated. For example, for a 15 year timeframe, 50% can be added to the totals herein to approximate requirements for an additional 5 years.
  - a. *For MetroTV Government Access* - To provide new, upgraded and replacement equipment for the MetroTV government channel, approximately \$2,369,632 will

be needed over the next ten (10) years in order to support the programmatic initiatives indicated by our assessment findings.

- b. *For Insight/Time Warner Public Access* – New, upgraded and replacement equipment for Public Access Channel 98 over the next ten (10) years will equate to approximately \$927,648 in necessary capital funding by Insight/Time Warner in order to support the initiatives indicated herein.

**3. Digital Migration and Service Expansion** – As programmers develop content in a variety of formats, adequate Access channel capacity and channel positions, satisfactory to the Access channel provider, need to be provided, along with any necessary technical modifications and equipment. Specifically, based on the findings determined herein, each Access channel provider should be allocated enough capacity on the cable system to be able to provide the following:

- a. Their channels as real-time services in standard definition form
- b. Their channels as real-time services in high-definition form
- c. Access to Insight/Time Warner’s cable-based video on-demand platform
- d. Programming provided as interactive television services
- e. Other narrowcast, targeted services as they may be developed in the future for fulltime distribution

**4. Access Facilities** – The primary need for new, renovated and additional space to that already utilized and reviewed during this report, is related to new studio production space for MetroTV and augmentation by Insight/Time Warner of the new Linn Station Road Public Access facility to create new areas and expand existing ones.

The space needed for MetroTV is detailed in the attached spreadsheet (Attachment C-5) and equates to approximately 1,421 square feet. Based on this, we have forecast a facility construction/renovation cost of approximately \$200 per square foot. This would then equate to a capital facility funding requirement for MetroTV of \$284,200.

For Public Access Channel 98, this requires the addition by Insight/Time Warner of 705 square feet of space, as detailed in the attached spreadsheet (Attachment C-5). We have again forecast a facility construction/renovation cost of approximately \$200 per square foot. This would then equate to a capital facility funding requirement for Public Access Channel 98 of \$141,000.

5. **Access Promotion** – Results from the surveys, interviews and focused discussions indicate that significant additional promotion of PEG Access is needed, including both promotion of PEG Access programming and the availability of the Public Access facility, equipment and channel. This should take the form of promotion of MetroTV and Public Access Channel 98 programming on other cable channels (such as providing time slots typically available for PSAs and advertisements, for PEG programming and facility promotion and outreach). It should also take the form of website creation and development of a social media presence for Public Access Channel 98.

In summary, as indicated above, for facilities and equipment, the total dollar figure needed over a ten year period is \$3,722,480. The funding for such can be provided in the form of upfront capital grants or advances, based on the needs in the early years of a potential ten year franchise timeframe, and then additional monthly funding can be provided throughout the term of the franchise in order to ensure replacement of the initial equipment and facilities, procured and developed. Note that in Attachment C-4, for example, approximately \$543,950 in capital equipment funding is needed in the first year of the ten year projections, plus \$425,200 for facility expansion potentially as early as Year 1.



**SECTION D**

**REVIEW OF INSTITUTIONAL NETWORK NEEDS AND**

**INTERESTS**

**IN THE LOUISVILLE METRO FRANCHISE AREA**

## **INSTITUTIONAL NETWORK NEEDS ASSESSMENT**

### **Introduction**

CBG Communications, Inc. (CBG), at the request of the Louisville Metro Government (Metro), has performed a review of the current Insight/Time Warner provided Institutional Network (I-Net). The I-Net is a portion of Metro's Wide Area Network (WAN) serving numerous facilities throughout the Metro area (the WAN is also known as "CityNet" by a number of user agencies). This review was designed to gain an understanding of the I-Net's operation, reliability and overall usefulness and functionality for the end users. In addition, CBG held a meeting with current and potential users of the I-Net to understand their experiences and perceptions concerning the network's ability to fulfill their needs today and into the future, as part of a broader cable-related Needs Assessment.

CBG participated in meetings and follow-up discussions with these entities and their member organizations to allow the members to share their experiences and to determine their needs specific to the I-Net and networking in general.

## **Findings**

### **Network Overview**

As part of the existing Franchise, '98 Ordinance, Sections 47 (1), (2) and (3), between the City of Louisville and unincorporated Jefferson County (now Louisville Metro Government) and Insight Kentucky Partners II, L.P. (now Insight/Time Warner), a dark fiber I-Net is made available for use by Metro for communications between noncommercial entities throughout the Louisville Metro area. There are currently approximately 37 facilities plus three Insight/Time Warner hubs connected via the I-Net. In addition, there are networks owned by Metro Government as well as educational entities that are utilized throughout the Louisville metro area. Furthermore, other types of connections and connectivity offered by other telecommunications providers are used such as T-1's, cable modem, 3G cellular, etc. These networks, in varying degrees, work in tandem with the I-Net to provide connectivity to hundreds of locations throughout the Metro area.

Metro currently provides and maintains all equipment on the I-Net needed to activate the network. This equipment is located at each of the 37 facilities as well as at Insight/Time Warner's hub locations known as the Story, Garfield and Okolona fiber hubs.

Overall the I-Net users are satisfied with the reliability of the dark fiber I-Net with few exceptions as discussed in this Report below. The largest needs expressed are related to expansion of the existing I-Net.

### **Network Redundancy**

Currently there is little redundancy built into the I-Net. As applications continue to increase and critical applications running on the network increase, additional redundancy needs to be built into the network. Some of this redundancy can be built in by creating one or more rings, as discussed in the Additional Facilities Section below, and other forms of redundancy should be explored by having Metro fiber optic cables coexist with I-Net fibers at core facilities.

## Additional Facilities

During our network review and discussions with I-Net users, it became clear that additional facilities need to be connected to the I-Net going forward. We have created a list of these sites, attached to this Report as Attachment D-1, with an approximate distance to connect into the existing I-Net or to connect to a location that is also included as a new location. Because Metro has not been provided with route maps of the I-Net, we created a ring around the outer portions of the Metro area and then plotted each new location on a map. From there, we used a logical, physical path via poles and underground routes to a site currently connected to the I-Net or to the new ring. We then used industry standard costs per mile for aerial and underground construction to apply an estimated cost to construct each new link.

As a starting point for expansion of the I-Net, we have determined that a ring needs to be created within an approximate area between Interstate 265/KY841 and the Ohio River. Although exact routing will vary as the expansion is further designed, we envision the Metro Hall becoming the main hub location for the new ring. From there the fiber would run:

- South to W. Broadway,
- East to Dixie Highway going southeast to a new hub located at 10015 Dixie Hwy.,
- East on Outer Loop to Beulah Church Road/Seatonville Road to Lovers Lane,
- North to Billtown Road to a new hub located at 5506 Billtown Road,
- North on Billtown Road to Taylorsville Road,
- East to Bardstown Road,
- Northeast to Baxter Avenue,
- Northeast to E. Broadway/W. Broadway,
- East to S. 5th Street and
- North to Metro Hall.

Construction of a ring around the Metro area will provide the backbone to more efficiently connect the new facilities into the existing I-Net. Furthermore, a ring topology will provide Metro with a redundant path for traffic which will provide, if so activated, fault tolerant back-up in the event the fiber is cut or otherwise compromised.

Once the above described ring is designed, it will provide the additional foundation, with the current locations, for the 78 non-hub locations to be connected to the I-Net. These sites are proposed to either connect to an existing I-Net location or to the new ring described above. Economies will be realized based on not needing to run fiber as far from many of the new locations as would be required if the ring were not in place.

There are many variables that will affect the final cost to build a fiber optic Institutional Network expansion. Of these, the final route will likely vary somewhat from that envisioned to compile these estimates. In some cases, additional footage may be needed, while in other cases shorter routes may be available. Another variable is the percentage of underground versus aerial construction. Underground construction is approximately two to three times more expensive than aerial construction so the final route design may have a significant impact on the total cost. The largest unknown variable at this point is how much existing fiber optic infrastructure is already in place that could be leveraged for this expansion. The industry standard is to place additional fiber optic strands when constructing cable TV infrastructure in order to have spare fibers in the future if the need arises. It is likely that Insight and now Insight/Time Warner have placed spare fiber throughout the Metro area over the years and continue to do so as they build out their subscriber network. Utilization of some of this spare fiber optic cable could significantly reduce the estimated costs of \$3.9 million for expansion as shown in Attachment D-1.

### **Relationship, Regular Meetings and Correspondence with Insight/Time Warner**

In discussions with Metro Staff and I-Net users, it is clear that a positive relationship has existed with Insight for many years and now Insight/Time Warner. Most often issues are dealt with in a timely manner and Insight/Time Warner staff are accommodating when Metro staff need to gain access to hubs where equipment is housed. Furthermore, there have not been significant issues related to what equipment can be housed in the hubs, electrical, heating and cooling, fire suppression, and other needs at the hubs. However, with changes in staff and varying priorities over time, Metro should not rely on an undocumented relationship to work favorably in the future.

Specific language should be included in a renewed franchise to ensure that both parties are clear on what specifications and requirements are in place. These should include, but not be limited to:

- Access to hubs 24/7/365 within 1 hour during business hours and within 2 hours at all other times.
- Response times when problems occur on the network.
- Accommodations at the hubs for:
  - Space
  - Heating and cooling
  - Back-up power
  - Fire suppression
  - Electrical and grounding
  - Security and monitoring
- Requirements for adding new, or relocating existing, locations.

Insight/Time Warner and Metro should hold regularly scheduled meetings to discuss, in advance, any and all issues that may impact the I-Net in a negative or positive manner. For instance, Insight/Time Warner can discuss scheduled maintenance on the network that will impact one or more facilities on the network. Metro and Insight/Time Warner can discuss options for timing of the maintenance to times or days less critical than others.

Processes should be put into place during the next franchise such that Insight/Time Warner has a written procedure to follow as it relates to planned outages. For instance, the I-Net users should designate a number of “Critical links”, such as hubs and core locations, on the I-Net. If any of these Critical Links will be impacted by a planned outage, Insight/Time Warner must provide a minimum of 45 days notice and work with the I-Net users and Metro during the first 10 days, following such notice, to determine if the day chosen by Insight/Time Warner will work for the users. This will allow the users to pick days for the planned outage that will present the least impact on the users.

All links not designated as “Critical” would still need significant lead time prior to planned outages, so they would be designated as “Major Links”. Planned outages that will only impact 1 or 2 Major links will require a 30 day notice with I-Net users notifying Insight/Time Warner within the first 10 days following notification to work with Insight/Time Warner if the timing of the planned outage is at a time that will not work for the users.

Insight/Time Warner should be required to inform Metro staff, at these meetings, of network expansions that are planned so that Metro can determine if adding additional fiber during the expansion could benefit I-Net users by reducing the cost to connect sites to the I-Net. Metro staff can keep apprised of construction by other companies and share this information with Insight/Time Warner during these meetings. Since putting conduit in the ground is the most significant cost of network expansion, this knowledge exchange should benefit both parties.

### **Applications Running on the I-Net**

Applications made possible and running on the I-Net are numerous and varied among users. Some of the applications include various forms of the following:

- VoIP
- Video applications
  - Video surveillance
  - Training
- Radio network backhaul
  - Emergency radio traffic
- Data
  - Financial applications
  - Desktop software sharing
  - Computer Aided Dispatch
- Monitoring and activating devices
  - Turning on/off lights remotely
  - Traffic cameras
  - SCADA backhaul
  - Opening garage doors

In addition to the applications running on the existing I-Net, additional services and applications which require higher reliability and faster network speeds can be made possible by expanding the current I-Net. For instance, HD video cannot run on 3G connections currently in place for many of the traffic cameras being operated throughout the Metro area, but would be feasible over fiber-based connections on an expanded I-Net. The need for network expansion is further explained below.

### Network Standards

Because the I-Net is a dark fiber network, many of the standards that are maintained on networks do not apply to Insight/Time Warner and therefore they are not necessarily needed in a franchise agreement. For instance, error rates, jitter, throughputs, latency, etc. are primarily the result of the equipment placed on the dark fiber network. However, there are still standards that do apply to Insight/Time Warner's operation of the dark fiber I-Net. These include reliability or availability, response time when a problem is reported to Insight/Time Warner, repair time when a problem is identified and notification to Metro in the event of planned outages due to required maintenance. Accordingly, the following standards should be included in the renewed franchise:

Optical loss on the fiber shall not exceed manufacturer's specification and be no worse than:

- $\leq .25$  dB per Kilometer at 1550 nm
- $\leq .35$  dB per Kilometer at 1310 nm
- $\leq .1$  dB per splice
- $\leq .75$  dB per connector pair

Network availability shall be equal to or better than 99.995% on an annual per facility basis. A facility is considered down if the fiber optic network causes a reduction in network performance for any reason.

In addition, a renewed Franchise should allow for changes to the specifications as network parameters change over time. This will eliminate the potential to have obsolete specifications or standards in place over the final years of a franchise agreement.



## Network Testing and Evaluation

I-Net users, through Metro, should have the ability to have Insight/Time Warner test specific links when problems are believed to exist. Users should first determine that their equipment is functioning correctly and then work with Insight/Time Warner to troubleshoot the problem including by performing Optical Time Domain Reflectometer (OTDR) testing when users believe the network is operating below design standards.

In addition, all new facilities that are activated on the I-Net should have all single fibers tested to show acceptable construction and operation within the standards described below.

## Disaster Recovery Plan

A Disaster Recovery Plan (DRP) is a documented written set of procedures, processes and steps to be taken to recover from a catastrophic network failure. A number of natural or manmade events can cause these failures, such as earthquakes, flooding, widespread storms, fire, freezing rain, volcanic eruption, civil unrest, terrorism, network sabotage, etc.. Regardless of the cause, a DRP will ensure that all parties involved in the operation of the I-Net, including Insight/Time Warner and the I-Net users, are prepared to react to the disaster and take the proper steps, in the proper order, to get the network running again. The following actions should be taken to create a DRP:

- Obtain commitment by all users and Insight/Time Warner.
- Establishment of a DRP Committee to develop and regularly update the DRP.
- Perform an initial and regularly scheduled Risk Assessments.
- Establish priorities for a recovery situation.
  - Site priorities
  - Application priorities
- Establish potential equipment needs in the event of a disaster.
- Ensure spare equipment is on hand and multiple (local and non-local) equipment suppliers are identified prior to needing additional equipment.
- Assign specific responsibilities for oversight and implementation of the recovery process. Ensure that personnel are not assigned other, non-I-Net responsibilities that will compete with the recovery process during a disaster, by their organizations. Develop multiple

layers of personnel for each potential task, assume some personnel and organizations will not be able to perform tasks during the recovery. It should be assumed that, during the development of the DRP, key personnel who are highly qualified and dependable during normal operations may not be available during a disaster recovery.

- Create a highly descriptive well documented DRP.
- Test the Plan regularly and update the plan as needed but at least on an annual basis.
- Get final buy-in and approval from all users and entities. Renew the buy-in as the plan changes.

Without a DRP in place, when a disaster occurs, Insight/Time Warner and various users will have different, and perhaps opposing, ideas of what needs to be done to get the network back on line and what the priorities are. In addition, necessary equipment and personnel may not be available or may be assigned to repair or recover other non-I-Net facilities. A DRP for the I-Net can be included in Metro's DRP(s) that currently exist but very clear responsibilities, as described above, need to be included for the I-Net. Creating a DRP needs to be a very high priority in the near term.

## **Conclusions and Recommendations**

- 1. Additional Facilities** - I-Net users and potential users have identified 81 facilities not currently on the I-Net where expanding the I-Net to them would enhance capabilities, reliability and reduce networking costs to the users. The best network expansion design would include at least one ring, with a minimum number of three hub locations along the route, around the outer portions of the metro area. This ring would provide a level of reliability whereby a cut along the fiber route would be bypassed by rerouting the traffic around the ring in the opposite direction and virtually eliminating the cut from the path. This increases the reliability for the core backbone of the network and all users of the network.

Once the fiber optic ring is designed, the additional 78 locations shown on Attachment D-1 could be run to the nearest active location or be spliced into spare fibers run along the fiber ring path in order to reach the nearest hub or I-Net site. Because placing the conduit in the ground or lashing the fiber bundle to the poles is the most expensive cost of network build-out, running these additional facilities fiber to existing infrastructure or facilities will significantly reduce the build-out cost. As shown in Attachment D-1, we have estimated the cost to build the I-Net to 81 new locations, including a backbone ring, to be approximately \$3.9 million.

- 2. Regular Meetings and Correspondence with Insight/Time Warner** - Although good working relationships have existed between Metro and Insight/Time Warner staff over the years, some requirements need to be included in a renewed franchise to ensure expectations are documented and understood by both parties. These include accommodations at the hubs sites owned and operated by Insight/Time Warner. These include:

- Access to hubs 24/7/365 within 1 hour during business hours and within 2 hours at all other times.
- Response times when problems occur on the network.
- Accommodations at the hubs for:

- Space
- Heating and cooling
- Back-up power
- Fire suppression
- Electrical and grounding
- Security and monitoring
- Requirements for adding new, or relocating existing locations.

Insight/Time Warner and Metro staff should meet regularly to discuss upcoming events that may impact each other. For instance, Insight/Time Warner should take this opportunity to discuss planned outages created by performing required maintenance. Discussions should be held to get input from Metro and the I-Net users on how the impact of such outages may be minimized.

**3. Applications Running on the I-Net** - The applications running on the I-Net are numerous and of various forms. These range from database sharing and backup between facilities to VoIP applications and video. In addition to the applications being run today, users desire to enhance these over time. For instance, today traffic camera video is transported via 3G services. The video quality and reliability on the 3G network is poor. Moving these applications to the I-Net would allow for HD quality video, enhancing the value of these cameras for monitoring and help emergency services to respond more quickly and appropriately to developing situations throughout the Metro area.

**4. Network Standards** - A renewed franchise needs to have network standards in place for the I-Net. These standards will put in place expectations that are consistent for both Metro and Insight/Time Warner. Network standards should include fiber optic specifications and reliability requirements. These should include:

Optical loss on the fiber shall not exceed manufacturer's specification and in no case be worse than:

$$\leq .25 \text{ dB per Kilometer at } 1550 \text{ nm}$$

- $\leq .35$  dB per Kilometer at 1310 nm
- $\leq .1$  dB per splice
- $\leq .75$  dB per connector pair

Network availability shall be equal to or better than 99.995% on an annual per facility basis. A facility is considered down if the fiber optic network causes a reduction in network performance for any reason.

- 5. Network Testing and Evaluation** - All new locations added to the I-Net should be tested with an OTDR to ensure the fiber optic infrastructure is constructed and operating as designed. All documentation on these sites should be archived for future reference if a problem is experienced along a given link. If problems do develop over time, new tests of the fiber can be performed and compared to those done prior to activation of the link.

A renewed franchise should contain language requiring Insight/Time Warner to run tests on the fiber optic links when users experience problems that may be caused by faulty fiber(s).

- 6. Disaster Recovery Plan** - A Disaster Recovery Plan (DRP) is a document designed by the users of the network to all catastrophic failures of the network can be overcome in the least amount of time while prioritizing the recovery tasks. For instance, the plan would determine which facilities would be brought back on line first in the event of a tornado that damages miles of fiber optic infrastructure. Furthermore, the plan would dictate responsibilities, as determined during normal operating conditions so fewer decisions are being made during the disaster. The plan must be designed and accepted by all entities on the network as well as by Insight/Time Warner.

A well written DRP will take into consideration and include, at a minimum, the following:

- Obtain commitment by all users and Insight/Time Warner.
- Establishment of a DRP Committee to develop and regularly update the DRP.
- Perform an initial and regularly scheduled Risk Assessments.

- Establish priorities for a recovery situation.
  - Site priorities
  - Application priorities
- Establish potential equipment needs in the event of a disaster.
- Ensure spare equipment is on hand and multiple (local and non-local) equipment suppliers are identified prior to needing additional equipment.
- Assign specific responsibilities for oversight and implementation of the recovery process. Ensure that personnel are not assigned other, non-I-Net responsibilities that will compete with the recovery process during a disaster, by their organizations. Develop multiple layers of personnel for each potential task, assume some personnel and organizations will not be able to perform tasks during the recovery. It should be assumed that, during the development of the DRP, key personnel who are highly qualified and dependable during normal operations may not be available during a disaster recovery.
- Create a highly descriptive well documented DRP.
- Test the Plan regularly and update the plan as needed but at least on an annual basis.
- Get final buy-in and approval from all users and entities. Renew the buy-in as the plan changes.

**7. Network Redundancy** - Metro and the I-Net users should work with Insight/Time Warner to design and build redundancy into the network. The first step is to build a fiber optic ring around the City that will provide a fault-tolerant backbone to interconnect three hubs. This ring should have true redundant paths and equipment capable of switching the direction of traffic to avoid a cut or other fiber optic deterioration.

Additional redundancy can be built into the network by connecting sites to more than one providers' network. For instance, a site can have both Metro fiber and I-Net fiber run into it to reduce the odds of a fiber failure from taking the site offline.